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**THE IMPACT OF A LITERACY PROGRAM IN
A GUATEMALAN LADINO PEASANT COMMUNITY**

UNIVERSITY OF SOUTH FLORIDA, 1967

THE IMPACT OF A LITERACY PROGRAM IN A GUATEMALAN LADINO

PEASANT COMMUNITY

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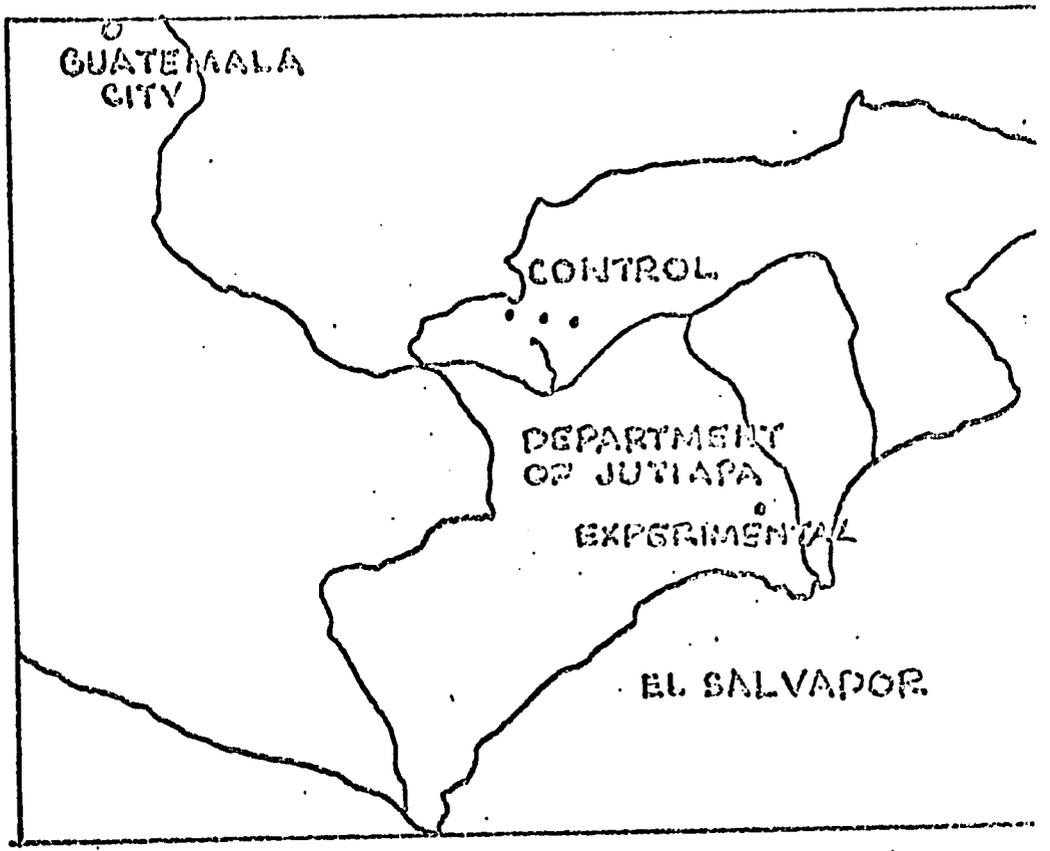
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PREFACE

The present study describes important differences in attitudes and practices of literate and illiterate populations of "experimental" and "control" villages in the Department of Jutiapa, Guatemala. The study also clarifies the relevance of peasant characteristics and behavior to rural community development and culture change.

A serious limitation of a cross sectional study of the impact of a literacy program lies in data which provide measures of differences between populations at a given point in time rather than changes which have taken place in one population over an elapsed period of time. Whether superior practices in economics, health, diet, or greater mobility and exposure to mass media are products of literacy or simply correlates of a high degree of intellectual functioning and achievement motivation cannot readily be established in a study such as this. There is evidence that the bright illiterate closely resembles the bright literate in many practices and that dull people whether literate or illiterate have much in common. It is certain that the bright highly motivated illiterate peasant will avail himself of the opportunity to become literate and that literacy classes are a screening device for these brighter individuals. There is also evidence in the following report that certain attitudes and behavior of literates are different from those of illiterates. The reader is cautioned against a temptation which has beset the investigators to arrive at conclusions which properly can only be drawn from a study which measures change in the same population over a period of time. The present study provides a baseline for a future longitudinal study.

The report is the culmination of 5 years of investigation carried on with the interest and cooperation of Jutiapa teachers and scores of campesinos. Special recognition is due Ernesto B. Jimenez, Juan Ponce, Zoila Ponce, Dora Chiu Gudiel and Gregorio Soto, all of whom worked for the success of the pilot literacy program and assisted the investigators. Mr Frank Traiber of A. I. D. Guatemala has shepherded both program and investigators since 1961.

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INTRODUCTION

The majority of the world's adult population is illiterate and concentrated in the poor countries. However, there has been little information about the role and effects of literacy programs in development to guide the application of funds and manpower. This study was designed to provide such guidelines.

This report (1) assesses the impact of an A.I.D. sponsored literacy program on the base rate of literacy in a peasant community, (2) evaluates differences between a community in which a literacy program has operated since 1962 and communities without literacy programs and in which the literacy program has collapsed, (3) evaluates differences in attitudes and mode of life between people who have achieved literacy in the program and those not in the program, (4) assesses the role of adult literacy programs in community development, (5) contains recommendations for the planning of literacy programs in rural areas.

The study stems from previous research conducted in Guatemala by the investigators: a depth study of a Guatemalan Ladino peasant community undertaken during 1962 and 1963, and a survey of an A.I.D. sponsored pilot literacy program in the Department of Jutiapa, Guatemala, in 1964.

Definition of Literacy

Definitions of literacy are ambiguous. An operational definition of functional literacy supplied by UNESCO designates it as "that level of ability to read and write which is normally expected of literate people in the area or culture involved."¹ When this requirement was translated into school achievement in the U.S., it was found that the level needed is that normally attained by completing the fourth grade (Gray, 1956).

¹World Campaign for Universal Literacy (New York: United Nations Economic and Social Council, Document E/3771, 1963).

Literacy is further defined as "functional" when literacy skills provide an avenue for attainable personal, social and economic improvement. "Functional" literacy differs from one culture to another. In the society under investigation, a person was considered functionally literate if he could comprehend the written materials which deal with his problems of daily living; i.e., those of health, nutrition, and personal-social economics.

In the present study the literacy status of each individual was evaluated on the basis of a test of literacy developed in the field with the aid of educational consultants in Guatemala.

Related Literature

There are few published reports on the meaning or effects of literacy among peasants whose lives are dictated by custom and whose family income seldom exceeds \$100.00 a year. Daniel Lerner's study of Middle Eastern societies supports the speculation that "Literacy is the basic personal skill that underlies the whole modernizing sequence." He maintained that "With literacy people acquire more than the simple skill of reading It trains them to use the complicated mechanism of empathy which is needed to cope with this world."² In 1964 Lerner³ reported that literate villagers in Turkey had higher empathy than illiterates, more modern attitudes and were more likely to perceive themselves as innovators. Lerner's studies were concerned with people in active transition and above the subsistence level of peasants in Eastern Guatemala.

Robert Redfield notes that before efforts were made to extend literacy to all Yucatecan peasants the function of literacy was seen as keeping records and accounts and understanding communications from towns and cities, but with the extension of literacy to everyone the motivation

²Daniel Lerner, The Passing of Traditional Society: Modernizing the Middle East, (Glencoe: The Free Press, 1958), p. 64.

³Daniel Lerner, "Literacy and Initiative in Village Development", Rural Development Research Report, (Cambridge: MIT Center for International Studies 1964).

of the villager lay in matters of status. Moreover, Redfield states " the view persisted that insofar as literacy was a practical necessity, it was enough that somebody in the village should be literate. Today, when men plan to make all the world's people's literate, the attempts to do so encounter, among other difficulties, the limited motivations of the peasant."⁴

Carothers suggests that the presence or absence of literacy in a society constitutes one, if not the major, cultural factor in producing varying attributes of mental health.⁵ Data developed by Benitez show that high literacy is correlated with lower mortality in Mexico.⁶ A report of the proceedings of the seminar on literacy held in New Delhi in 1962 assumes the importance of adult literacy in social and economic progress, but notes that research in literacy "appears to be restricted to the study of word counts, survey of existing literature for new literates and reading interests and habits."⁷

Recently several studies have been reported on correlates of functional literacy in rural and semi-urban communities of Colombia, Guatemala and Costa Rica.⁸ Rogers and Herzog found functional literacy in 5 Colombian communities "related to mass media exposure, to

⁴Robert Redfield, The Primitive World and its Transformation, (Ithaca, Cornell University Press, 1953), p. 37.

⁵J. C. Carothers, "Culture, Society and the Written Word," Psychiatry, XXII No. 4 (November 1959), pp. 307-320.

⁶Z. R. Benitez, "Tabla de Vida en la Republica Mexicana," Revista Mexicana de Sociologia, XXI, (1959).

⁷H. P. Saksena, "Adult Literacy Research in India," Adult Literacy (New Delhi: National Fundamental Education Center, 1962).

⁸Alfredo Mendez D. and F. B. Waisanen, "Some Correlates of Functional Literacy," Paper presented at the Ninth Congress of the Inter-American Society of Psychologists, Miami, 1964; and Everett M. Rogers and William Herzog, "Functional Literacy among Colombian Peasants," Economic Development and Cultural Change, XIV, No. 2 (1966), pp. 190-203.

be more characteristic of children than adults, to be associated with empathy, agricultural and home innovativeness, achievement motivation, farm size, trips to urban centers, political knowledge and sociometric opinion leaderships."⁹ The authors recommend further study of the meaning of literacy to the neo-literate, of the cultural and ecological settings as they affect the functions of literacy and the motivations for the adoption of literacy.¹⁰

Valverde (1961) in the principal and most recent publication on illiteracy in Guatemala, presents a history and description of government sponsored literacy programs since 1944, supported by statistics on costs and attendance. Whetten (1962) contains a chapter on education in Guatemala in which lack of schools, trained personnel, and curriculum meaningful to a peasant society are given as reasons for the continued high rate of illiteracy. Statements of the problems of national illiteracy are contained in Chavarria (1953) and a publication of Dirección General de Educación Fundamental (1952).

The principal literature on Guatemalan culture and peasant societies is concerned with native cultures (Bunzel, R., Gillin, J., Tax, S., Wagley, C., and others). The principal work on the Guatemalan Ladino (Adams, 1956) presents a general description of this culture in eastern and northern Guatemala supported by statistics from 1950 census. Papers and commentaries by R. Adams, R. Beals, L. Gillin, A. Holmberg, Sol Tax, C. Wagley and others (1960), deal with social change and factors influencing social change in both Indian and Ladino societies of Guatemala. Redfield's (1960) description of peasant societies and culture embraces characteristics of peasant communities found in the Department of Jutiapa.

Background of Literacy Programs in Guatemala

The value and effects of literacy programs for Guatemalan peasants have been a subject of controversy since the first literacy program for

⁹Rogers and Herzog, p. 203.

¹⁰Ibid., p. 202.

for adults was undertaken in 1944 by government decree. Throughout Guatemalan history, education, first in Indian and then in Spanish Colonial Society, has been reserved for an elite class. The National Literacy Act of 1944 declared illiteracy a national emergency and set as its goals a literacy rate of 95% for the entire adult population. Its purposes, stated in the preamble to the Act were "to make an effective government of the people, by the people, and for the people, putting our citizens in the position to exercise their rights and duties . . . and to cooperate in the social and economic reform that the post war days will undeniably bring for the entire world." The Act also stated, ". . . dictatorship suffered by the country did not hesitate to resort to reprehensible methods to move the illiterate electoral masses that sanctioned their perpetuity in power."¹¹

With a change of government in 1954, the National Literacy Act was suppressed. Decree 45 stated in part, ". . . the literacy campaign carried out in zones affected by the agrarian reform has not rendered the fruits that were hoped of it . . . and has been unproductive in regard to the civic and cultural orientation of the campesinos." The decree also stated that the National Literacy Act would be suppressed until "a study is made of a reorganization and adequate regulation of these services."¹²

The National Literacy Act has not been restored. The only literacy campaign for adults from 1954 to 1962 was that conducted by and within the Guatemalan Army. In 1959 with U. S. A. I. D. support a new literacy course was designed and tested for two years in the armed forces and in the penitentiary in Guatemala City. In 1962 under the sponsorship of A. I. D. Guatemala and the civic action program of the Guate-

¹¹ Decreto Numero 72, La Junta Revolucionaria De Gobierno, cited by Victor Manuel Valverde, El Analfabetismo en Guatemala (Guatemala, 1961) p. 18.

¹² Decreto Numero 45, La Junta De Gobierno De La Republico De Guatemala, 1952 cited by Victor Manuel Valverde, El Analfabetismo en Guatemala (Guatemala, 1961) p. 33.

malan Army the new program was introduced on a pilot basis to the civilian population of the Department of Jutiapa. The pilot program depended

on volunteer teachers; public school teachers as well as any literate who volunteered his services. The services of the latter brought literacy programs to many communities without public schools. Starting in 1962, the use of the literacy teaching materials spread to other departments of the country. In 1965 the direction of the program on a nationwide basis fell to the Guatemalan Ministry of Education which placed emphasis on literacy instruction by the trained public school teacher in communities with schools.

Department of Jutiapa: Social and Economic Context of the Literacy Program

Ninety per cent of the population of Jutiapa lives in rural communities with less than 2500 inhabitants. According to the 1950 census, the rate of illiteracy among population seven years of age and older in Guatemalan communities with fewer than 2500 inhabitants was 82%. The illiteracy rate for the entire Department in 1950 was given as 76%.

Jutiapa's population of 189,480 is distributed among 854 communities, only four of which have more than 2000 inhabitants. Less than 150 of the communities are accessible by motor vehicle the year round. Approximately 594 of these communities are without public schools. These include most of the caserios and fincas, but there are also a few aldeas without schools. In communities with schools, approximately 52% of the school age children attend, and the range of attendance is from 20% to 60%. In communities without schools attendance ranges from zero among the majority to 25% where there is a school in a neighboring community. Seventy-two per cent of the population have not attended school. Less than 1000 have gone beyond primary schooling and none attended a university.¹³

In a typical rural community half of the children who attend school do not progress beyond the first grade and cannot be considered functionally literate. In one community studied in 1963 the average age of

¹³ Censos 1964 Población, Dirección General De Estadística, Guatemala, 1966.

students in the first grade was 8.9 years and the range was from seven to fourteen years. Children who have not begun their education by the age of twelve may be considered lost to education. Periods when schools are in session correspond to the periods of greatest agricultural activity when all hands are needed for planting and harvesting and to periods of rainfall when crossing rivers and streams is hazardous. Other reported causes for low attendance are: 1) lack of energy due to malnutrition and worms, 2) lack of parental interest, 3) inability of families to provide books and clothes. In the aldea of El Jocote in 1963, the median cash income per family was approximately \$90.00. Families with school age children averaged 8.36 persons in the households. The paper bound first year book cost \$1.00, and the family is also required to supply pencils and notebooks. While children in the first grade are not expected to wear shoes, whole pants and shirts are items of expense which prohibit the attendance of many children.

The major problems of the campesino of Jutiapa are diminishing productivity and increasing population. In the fourteen year period between 1950 and 1964, the population of the Department of Jutiapa increased 43.28%. During a thirty month period beginning January 1, 1962, the records of the Registro Civil in one community show a birth rate of 45.2 per thousand population. In the same community land ownership among four representative families comprising 398 persons declined over three generations from .92 manzanas (one manzana = 1.7 acres) per capita to .37 manzanas. At the same time the productivity of land has declined.

The economic life of the average campesino in Jutiapa is dictated by custom, geography and demography. Unlike the Indians of the Guatemala highlands, he has learned few crafts or trades; he raises few vegetables or fruits; he takes nothing to market. In fact, he seldom strays from the well worn footpaths that connect his community with the milpa and the nearest sources of water. His labors are devoted to raising corn and beans which can be grown from May to October and which can be dried and stored to provide food for his family for the balance of the year when the soil bakes and cracks and the rivers are

reduced to a trickle. The known reliability of corn and beans, the inability to store or preserve other crops, and the dependence of a growing population on diminishing per capita land resources reinforce the known patterns of survival and discourage innovation.

Pilot Literacy Program

The operational plan for the A.I.D. sponsored pilot literacy program was introduced in this social and economic context. Unlike previous literacy programs conducted under the National Literacy Act of 1944, the pilot program in Jutiapa operated on a basis of voluntarism and appealed to alfabetizadores, untrained literacy teachers, to initiate programs in their communities.

Findings of an evaluation of the A.I.D. sponsored pilot literacy program are pertinent to the present investigation.¹⁴ Briefly, they show:

- (1) A skillfully developed set of instructional materials and teaching aids based upon modern language techniques and designed for the adult peasant (14 years and older).
- (2) Instructional materials and supplementary readings designed to identify the skill of literacy with improvement in the life of the peasant.
- (3) Over 25% of illiterate males in Jutiapa Department between the ages of 14 and 30 attended literacy classes since the program began in 1962. Eighty per cent of those who attended were males.
- (4) Seventy-six per cent of those who attended literacy classes were between the ages of 14 and 30.
- (5) Seasonal planting, harvesting and migratory work reduced the teaching period to four or five months a year, indicating that 2 calendar years were required to complete the course.
- (6) The untrained, unpaid volunteer carried the burden of teaching, with 66% of the centers conducted by volunteers averaging 3.2 years of schooling.
- (7) In two thirds of the communities of the department the literacy program offered the only educational opportunity for both children and adults, with the volunteer the only available teacher.

¹⁴ P. C. Wright, T.A. Rich et al, An Evaluation of Plan Jutiapa, A Pilot Literacy Program, U.S.A.I.D., Guatemala, 1965.

- (8) Volunteer literacy centers in peasant communities often generated civic action, 4-S clubs, Amas de Casa groups and became important activities of the Peace Corps, Friends Society of America and religious groups. Literacy centers in turn supported these activities and groups.

The evaluation of Plan Jutiapa and a prior study of one peasant community¹⁵ revealed an awareness by the young campesino, 15-35 years old of the problems of diminishing per capita production of corn and beans, diminishing land resources and a search for a solution to the problems. The wants of the campesino are not those of a higher society but satisfaction of his immediate needs: land, better production, food and clothing and above all the welfare of his family. The social and economic structure of his life is family based, and oriented to the factions and spheres of influence of family rather than a larger concept of community and cooperation. He expects little from local or national government. His security and welfare are seen in the family. He is a hard worker. He honors his debts, though he is usually in debt. He is not at a loss for ideas how to improve his lot, but he is impeded by poverty, malnutrition, illiteracy and custom. Not the least of the impediments of custom is the forbidding distance between the peasant and assistance from a higher culture that holds the keys of education, technical assistance and credit. The campesino has not reached out. He has not known how to reach out. However, the voluntary attendance of young campesinos at night literacy programs conducted in their own communities and by members of their own community is seen as a response to the felt need to improve their lot.

Research methods, and findings are summarized in the second chapter. The balance of this report consists of appendixes in which the methods of research are discussed and the detailed findings are organized according to the stated research objectives.

¹⁵ P. C. Wright, T. A. Rich, E. E. Allen, The Role and Effects of Literacy in a Guatemalan Ladino Peasant Community, Cooperative Research Project S-027, U.S. Office of Education, 1965.

CHAPTER II

PROCEDURES AND PRINCIPAL FINDINGS

The research design, shown in Figure 1, called for a cross sectional analysis of 2 communities to 1) assess the impact of an A.I.D. sponsored literacy program on the base rate of literacy, 2) evaluate differences between communities, 3) evaluate differences in attitudes and mode of life between those who achieved literacy in the program and those not in the program. The study also sought to validate and amplify a 1964 survey conducted in 52 Guatemalan communities of 1) the role of literacy in rural development as perceived by students and teachers, and 2) the conduct of literacy programs in the Department of Jutiapa, Guatemala.

Procedures

Data from the 1950 and 1964 Census, existing records of literacy centers and visits to communities provided the basis for selection of the "experimental" village, a community typical of those where an A.I.D. sponsored literacy program had been in operation continuously since the introduction of the program in Jutiapa in 1962. The same procedures were employed to locate a "control" village, one which differed principally from the "experimental" village in that it had not had a literacy program in continuous operation. Since no single matching "control" village offered a sufficient number of male literates for appropriate study, 3 villages were selected. These 3 villages are referred to as the "control" village.

Following is an outline of investigative procedures:

The base rate of literacy for a selected age group was

FIGURE 1

GENERAL DESIGN

I.

Independent Variable.....Literacy Program
 Dependent Variable..... Base Rate of Literacy

Experimental Village All 15-35 age

..... Literacy Survey
 (Based on field test)
 Base rate-Lit. Village X
 Base rate-Lit. Village C

Control Village All 15-35 age

..... Literacy Survey
 (Based on field test)

II.

Independent Variable..... Literacy
 Dependent Variable Attitudes and Practices In:
 A. Education
 B. Health
 C. Economics

Literate	Illiterate
Exp. Village N = 30	Exp. Village N= 30
Control Village N=30	Control Village N=30

Intensive Testing
 1. Interview
 2. Literacy Interest Test
 (Picture Test)
 3. Ladder Rating Interview

2. By stratified random sampling 30 literate and 30 illiterate males matched for age were drawn from both the "experimental" village and the "control" village, providing a total sample of 120 individuals for further tests and interviews.
3. The following instruments, administered by a team of Guatemalan research assistants and the investigators, provided data on the background of the selected sample and their attitudes and reported practices in areas of health, nutrition, economics, migration, travel, mass media, literacy, and community and self-other relationships.
 - a) Interview schedule in standard form.
 - b) Literacy Interest Test, a tape recorded picture story interview.
 - c) Ladder Rating Interview, a self scaling device.
4. Analysis and evaluation of the data were conducted as follows:
 - a) Literacy scores, standard interview data and ladder rating responses were programmed for computer analysis and frequencies determined by literacy, type of literacy training and village.
 - b) One hundred twenty Literacy Interest Test (LIT) protocols were judged on 4 global scales (psychological functioning, empathy, achievement motivation, frustration) 1) In Spanish transcription by 3 Guatemalan judges. 2) In English translation by 2 U.S. Psychologists.
Significantly high interjudge correlations (2 pooled U.S. vs. 3 pooled Guatemalan) are interpreted as supporting the validity of the translations and the use of cross cultural evaluations in this research.
 - c) Scales derived from directed answers (Part B of LIT) were established and responses of 120 individuals to directed questions on each of 8 picture cards were rated and frequency of responses established by literacy and village.

- d) A word count was compiled of questions, answers and of pauses for all cards of each LIT protocol, based upon the Spanish transcriptions.
- e) Correlation matrixes were computed consisting of literacy scores, literacy use scores, LIT Global Scores (Pooled judges ratings) and selected items from the standard interview, LIT responses and Ladder Rating interview: Net worth, agricultural practices, mobility, migration, radio use and preference, mass media exposure, perceived value of education, attitudes and practices in health, job preference, attitudes towards use of money, and community/family orientation.

The findings reported are based on the observations of the investigators, the analysis of interview data, of the picture story (LIT) data and the Ladder Rating Interview. Where appropriate, statistical analysis such as chi-squares and correlation matrixes were used.

Principal Findings

Objective 1: To assess the impact of an A.I.D. sponsored literacy program on the base rate of literacy.

1. The literacy rate of the 15-35 age group in the "experimental" village was found to be 14% higher than in the "control" village. This measurement of impact of the A.I.D. sponsored literacy program obscures the fact that in the "control" village some individuals obtained the A.I.D. instructional materials and learned to read by themselves. In the "experimental" village, 50% of the literates achieved literacy in the adult literacy class. In the "control" village, 16% achieved literacy via short lived literacy classes and self instruction. About half of those who attended literacy classes had no previous instruction.
2. In the "control" village 15% more males, 15-35, attended public school than achieved literacy, and 7.2% more females attended public school than achieved literacy. In the "experimental" village the per cent of literates in the 15-35 age

group who are literate is greater than the per cent who attended public school.

Objective 2: To evaluate presumed differences between two communities, one in which a literacy program has operated since 1962 and one in which a literacy program has not operated continuously.

1. Literacy classes serve as a screening device for the brightest, most highly motivated individual by our measurements. In the "experimental" village those who did not attend literacy classes were judged lower on psychological functioning, empathy and achievement motivation than illiterates in the "control" villages as well as literates in all villages. In other words many bright illiterates are found in "control" villages but few bright illiterates are to be found in a village where they have had the opportunity to become literate. "Control" literates tend to be brighter and show greater verbal fluency than "experimental" literates.
2. There are no important differences in certain areas between "control" literates who achieved literacy after 2 or more years of school and "experimental" literates who went to literacy classes. These areas of similarity include attitudes and practices in health, nutrition, travel, migration, mass media and sense of community. There are significant differences between literates and illiterates in these areas.
3. In their expressed preference for reading materials and in their estimate of the benefits of literacy, those who attended adult literacy classes in the "experimental" village show a slightly greater understanding of the purposes of education than the literate in the "control" village who attended public school. The illiterate in both communities thinks education important but for reasons that are not clear to him.
4. All subjects in both the "experimental" and "control" villages worked in agriculture. Ladino peasants aged 15-35, are largely dependent upon land owned by their fathers and are re-

sponsive to the will of their fathers. The higher land ownership and better economic practices reported by literates are most frequently those of the household of which the subject is a member.

5. High family net worth is directly related to the number of children sent to public school. However, net worth correlates more highly with psychological functioning than with literacy. Illiterates from the "experimental" village reported the lowest household net worth and were themselves judged lowest on psychological functioning.

6. In both the "experimental" and "control" villages the education and literacy of the sample is related to the education and literacy of the parents. If a mother has been to school, there is a high probability that her children will be sent to school. The effect of the father's education appears less important.

Objective 3: To evaluate differences in attitudes and mode of life between those who achieved literacy in the program and those not in the program.

1. Literacy is not correlated with the campesino's frustration. However, psychological functioning correlates highly with frustration. The bright, motivated individual whether literate or illiterate is judged the most frustrated. Those judged lowest on psychological functioning are also judged lowest on frustration.

2. In their attitudes towards economics, literate subjects, and especially those who attended literacy classes, show greater awareness than illiterates of ways to improve their condition and of alternate modes of life. All appear conservative and realistic. Few express the wants of a higher society.

3. The literate expresses a greater sense of community, an awareness of community needs and cooperation. The illiterate, in the peasant tradition, thinks of community in terms of family and family needs.

4. The literate more often sees the national government oriented towards social welfare and help for the campesino.
5. Literates express a greater awareness of the causes of illness than illiterates, and surpass illiterates in frequency of bathing, cleaning teeth, and in the number of remedies kept in the home.
6. Literates not only prefer but enjoy a more varied diet than illiterates. If a campesino mentions only corn and beans as preferred, he is probably illiterate. Literates know and use Incaparina, a dietary supplement, more than illiterates.
7. Literates travel further and more often than illiterates. While literates were the first in their communities to migrate seasonally and a greater number of the literate sample have migrated, illiterates are following their lead and show a tendency to migrate more consistently.
8. Although radio listening is equally available to literates and illiterates, the literate listens more. He also has a better memory of radio programs and expresses greater interest in news and information. Illiterates are more interested in music and entertainment. Movie attendance is directly related to travel outside the local community. More literates have seen a movie.
9. The frequency of letter writing and reading books, periodicals and newspapers was translated into a "literacy use score." This score is more closely related than literacy score to understanding the cause of illness, migration, travel, movie attendance and psychological functioning. Those who score highest in literacy use are less frustrated than the brightest individuals as a group as well as literates as a group.

Objective 4: To assess the role of adult literacy programs in community development.

High literacy is one index of the developing crisis in poor countries. That the peasant recognizes the crisis, wants to help himself and will avail himself of opportunities for self help is evid-

ent in the voluntary attendance of young males past school age at literacy classes. In the Department of Jutiapa, Guatemala, where about 40% of the communities conducted literacy classes during the 3 year period, 1962-1964, 10,216 males were reported to have attended classes.

Recommendations for the conduct of literacy programs are based upon an evaluation in 1964 of the procedures and materials used in an A.I.D. sponsored literacy program in the Department of Jutiapa as well as the present study.¹ Several observations relevant to the role of adult literacy programs in rural development are considered first:

1. The bright young campesino is aware of the deterioration of the peasant economy and the threat to his family of diminishing per capita food production.
2. The low cost of adult literacy made possible the first assistance program of any kind that could be made available to all peasants.
3. The young campesino sees literacy as an avenue of self help.
4. Seventy-six per cent of those who attended literacy classes were 15-30 years of age.
5. Attendance at literacy classes is highest in remote communities and those without public schools.
6. Frustration is a product of "brightness" and poverty and bears no relationship to literacy.
7. There are no important differences in attitudes and practices between those who have achieved literacy in public schools offering 2 to 3 years of schooling and

¹The reader is referred to Wright, P. C., and Rich, T.A., An Evaluation of Plan Jutiapa, a Pilot Literacy Program, a report submitted to A.I.D. Guatemala, 1965, and to Wright, P.C., Custom and Literacy in a Ladino Peasant Community, University Microfilms Inc., Ann Arbor, Michigan, 1967.

those who attended adult literacy classes.

8. Education, whether in public school or literacy classes promotes a sense of community, a first step towards cooperative effort and fundamental education.

9. Literacy classes are a screening device, a way of identifying and bringing together for a common purpose the bright, frustrated, most disadvantaged of the young peasant generation.

10. Where public funds are not available to provide teachers, instructional materials and schools to the typical isolated small peasant village, adult literacy programs conducted by literate volunteers provide an inexpensive alternate.

11. Adult literacy programs should be regarded as a first step along the road to rural development. They provide beginning literacy skills, an insight into the purposes of education and pave the way for such changes as are needed to improve peasant existence without destroying it. Literacy by itself will not provide low cost fertilizers, credit, increased productivity and storage facilities.

These are factors which may justify the introduction of an adult program and indicate its place in the total picture of rural development.

Objective 5: Recommendations for planning literacy programs in similar rural settings.

The following considerations in planning a literacy program are based upon the successes and failures of Plan Jutiapa, a pilot literacy program sponsored by A.I.D., Guatemala in the years 1962 and 1965. Most critical to the successes of Plan Jutiapa were the availability of dedicated teachers, both professional and untrained, the support and encouragement of teachers by local community and departmental authorities, and the availability when needed of appropriate instructional materials.

1. In remote communities, particularly those without schools and with highest illiteracy rates, literates without prior

experience as teachers are apt to become the most dedicated teachers.

In 1964 two thirds of the literacy centers in Jutiapa were conducted by untrained volunteers and 53% of those who attended classes lived in communities inaccessible by vehicle.

2. In communities with public schools, but where the public school teacher is overloaded with pupils and mixed grades, successful programs have been conducted by untrained volunteer teachers with the supervision and encouragement of the school teacher.

3. Literacy teachers, whether public school teachers or untrained volunteers, who were born and raised in the same or similar rural communities are more successful than urban raised and educated teachers in the following: interest in the community, community support, class attendance, continuing operation, understanding the role of literacy for the campesino.

4. Where volunteer teachers are used and communication with remote literacy centers is difficult, a staff of full time, paid professional teachers is needed to offer instruction and encouragement to volunteer teachers and to insure that centers receive instructional materials when needed. They should work with teachers in the field, not confine their work to bookkeeping and desk-bound supervision. They must be selected on the basis of their interest in, understanding of, and rapport with the campesino. They should help set up local committees (see # 5) and assist them in recruiting teachers.

5. Committees composed of interested and influential persons in rural communities have proved valuable in the recruitment of teachers and students, lending support to the program and recognizing the contribution of the teacher. Recruitment of students by teachers and committee members proved more successful than public decrees and public meetings.

6. Distribution of instructional materials, cardboard blackboards, notebooks, chalk when needed in remote areas constitutes a major logistics problem and complaint of literacy teachers. More time and effort is apt to be spent in central inventory control of pencils than in getting materials where they will be used.

7. Bearing in mind that many untrained volunteer teachers may have no more than 2 years of schooling, teachers' manuals should be simple and graphic. Whatever the level of teacher's literacy, all untrained teachers can be aided by an interested teacher-supervisor.

8. Instructional materials should be low cost and expandable. The Books of Juan used in Jutiapa were reproduced on newsprint. Cost of instructional materials including supplementary booklets, notebooks, paper, pencils, chalk was estimated at \$1.05 per student. The figure does not include program overhead or supervisory costs.

9. Content should be meaningful to the experience of the student and relate to his attainable aspirations. The Books of Juan tell the story of a typical campesino who achieves a life of dignity and who represents the most admired qualities of the campesino.

10. Instructional materials that promote vocabulary building make possible the increase of literacy skills upon completion of the course.

11. Cheap supplementary reading materials are needed, geared to the interests and needs of the campesino and which will lead him to greater understanding of the meaning of literacy: health, nutrition, child care, improved agricultural practices, simple arithmetic, stories for entertainment, etc. Plan Jutiapa developed 50 supplementary readers from booklets of the Pan American Series and other sources.

NOTE. Copies of instructional materials, teachers instructions, and supplementary reading materials used in Plan Jutiapa may be obtained from A.I.D., Guatemala. An analysis of the instructional materials and methods of teaching is contained in An Evaluation of Plan Jutiapa, a Pilot Literacy Program, A.I.D., Guatemala, 1965.

12. The scheduling of literacy classes must accommodate planting, harvesting and seasonal migration where these are essential to subsistence and take priority over other activities. In the Department of Jutiapa, 2 years are required to complete a course which in other areas might take a year.

13. Three classes a week in the evening and ending before 9:00 P.M. proved the most successful pattern for men in Jutiapa. Some centers provided classes 6 nights a week after harvesting, and some were able to conduct afternoon classes during periods when neither agricultural work nor migration was carried on.

14. In rural communities classes for women were conducted by women in the afternoon. Female teachers in rural areas seldom held classes at night.

In urban centers mixed classes of men and women were conducted both in the afternoon and in the evening by male and female teachers.

15. Although night literacy classes in Jutiapa were conducted by candle light, the provision of Coleman lamps produced a sharp increase in the number of night classes and class attendance.

Storage cans for kerosene and alcohol for the lamps and lamp repair parts must be made available..

16. In communities with schools, attendance of school age children (7-14) was reported to embarrass adults. Communities without schools reported no problems with mixed ages. In at least one community without a school the voluntary teacher held

classes for children one year and for adults (over 14) the next.

These observations are based upon one literacy program in a specific cultural context. While certain recommendations apply to all communities within the area, literacy centers in remote rural villages are different from those in urban communities, and those with public schools different from those without schools. These present different problems of class mix, teacher availability, class time, class location and community interest in literacy.

Literacy programs in other language, culture and geographic areas will encounter a range of conditions for which the Jutiapa experience may not suggest appropriate procedures. In short, successful literacy programs will observe the factors peculiar to the area in which they are conducted.

APPENDIX A

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RESEARCH METHODS

General Design

A Guatemalan Ladino peasant community which had an active, on-going literacy center since the inception of the A.I.D. sponsored literacy program in 1962 was selected as the "experimental" village. This village was matched on demographic variables including occupations, economic status and accessibility with 3 "control" villages, communities which had not had an active literacy program during the 3 preceding years.¹

Base rates for literacy in the "experimental" and "control" villages were established by the administration of a literacy test to all males and females aged 15-35 inclusive.² With matching on demographic and other variables, the known independent variable was the existence of an active literacy program and the dependent variable was the base rate of literacy.

In the same communities after completion of literacy testing, four samples were drawn for intensive investigation of differences in a variety of attitudes and practices. In the "experimental" village a literate sample was drawn by selecting 30 males who attended the literacy class and who had the highest literacy scores. The "experimental" illiterate sample was drawn from the same age range by stratified random sampling. The two "experimental" samples were matched with 30

¹The original design called for the selection of two matched communities. Literacy testing in the selected "control" village revealed an insufficient number of literate males to make up a literate sample. Examination of uncollated 1964 Census questionnaires for 7 other possible "control" selections revealed the same problem. On the recommendation of Dr. Richard Anderson and Dr. Benjamin Paul, consultants, literacy surveys were conducted in 3 matching "control" villages and stratified random samples of literates and illiterates were drawn from the 3 communities.

²Selection of the 15-35 age group was based upon a finding that 76% of those who attended literacy classes during 1962-1964 were in this age group. Wright, P. C., Rich, T. A., An Evaluation of Plan Jutiapa, U.S.A.I.D., Guatemala, 1965.

literate and 30 illiterate males selected from the 3 "control" villages stratified random sampling. This allowed for comparison of literates and illiterates in the "experimental" village with literates and illiterates in the "control" villages as well as intra-community comparisons.

Sample Selection: Experimental Village

The "experimental" community, that which had had an on-going literacy program since 1962 was selected on the basis of data on 173 literacy centers compiled in 1964 from the office of the Technical Supervisor of Education in Jutiapa, the office of the Depto. Alfabetización in Guatemala City and a survey of literacy centers conducted by the investigators. Inaccessibility of remote but otherwise eligible communities in the four departments of Moyuta, Pasaco, Comapa and Conguaco ruled these out of consideration. Cabeceras municipales were also eliminated because of the unavailability of matching communities that would meet the requirements of the design. The known availability of communities between 500 and 1000 population where literacy programs had been in continuous operation since 1962 and which could be matched with communities of equal size where a literacy program had not been started or collapsed limited selection to communities with the status of aldea. Since the program had operated most successfully in more remote rural areas, those few communities near the larger population centers of Jutiapa City, El Progreso and Asunción Mita, where the program had operated successfully, were eliminated as not typical.

Several communities which qualified for selection were eliminated because of unavailability of males who had attended literacy classes. In San Antonio Papaturo, for example, only 10 of the 45 who completed the literacy course were in the community during November and December 1965. The balance were said to be working along the Pacific Coast.

La Ceibita, an aldea in the Municipio of Zapotitlán, met the requirements of the design and is representative of remote aldeas where the program had operated most successfully. According to the 1964 Census,

Ceibita had a population of 526, a figure which was considered conservative because of a constant drain of workers under short labor term

contracts on cotton and sugar plantations along the Pacific Coast. The school teacher and alcalde auxiliar of La Ceibita stated in 1965 that the population of the community was 938. A census conducted by the investigators in October 1965 revealed a population of 589. The adult literacy program was first undertaken in 1962 by the local school teacher and a voluntary alfabetizador and had been in continuous operation since that date. Of the 67 individuals listed in teachers' records as having attended literacy classes, it was determined that at least 30 males in the required age range were available for testing and interviews.

La Ceibita is approximately 2 kilometers from a dirt road open to vehicular traffic year-round and is reached by a narrow footpath which winds up a mountainside to the village. The village consists of houses, chiefly of bajareque construction, which are connected by thorn lined footpaths. A small stream supplies water to the community from June through October. During the balance of the year water is brought by mule back or carried from the San Nicolas River, 4 kilometers away. La Ceibita has a one room adobe school house built by the community. The economy is based upon corn and beans raised on the hillsides. Typical of peasant communities in the Department of Jutiapa, La Ceibita can be defined by the families which make up the population. There are 23 family names in a variety of combinations which reveal the extent of intermarriage.

The community was first mapped and a population census, including age and sex taken. This census was compared with the April 1964 Census.³ Comparison of the two population surveys revealed that many residents of the community were away from their homes during one or the other census.

All individuals, male and female, in the age group 15-35 were administered a literacy test and brief questionnaire relating to educa-

³Data collected in the 1964 Census had not been tabulated by the Department of Census at the time this investigation was undertaken. All Census data relating to the individual communities was compiled by the investigators from raw data made available by the Department of Census.

tion and the names, ages and literacy of siblings. The latter provided a further check on population surveys. Two hundred and fourteen individuals were tested.

Thirty males who had attended the adult literacy class and who scored highest on the literacy test were selected as the primary sample for further testing and against which other samples would be matched. It should be noted that literate males in La Ceibita who achieved literacy in the public school and had not attended the adult literacy classes were not included in the sample. The age groups of the primary sample were as follows:

15-19 years.....	9 individuals
20-24 years.....	6 individuals
25-29 years.....	7 individuals
30-35 years.....	8 individuals

Alternates in each group were selected as second choices if subjects became unavailable for future testing, or if recorded interviews were defective. All alternates were interviewed.

The 59 available illiterate males were divided into the above age groups and a random matching sample with alternates selected.

The administration of the standard interview, the LIT tape recorded interview and ladder rating interview were undertaken one month later, after selection of "control" villages and administration of literacy tests in these villages. Upon return to La Ceibita for test administration some sample attrition due to migration had taken place and it was necessary to administer the test battery to 5 individuals at locations distant from the community.

Sample Selection: Control Villages

On the basis of data from the 1964 Census, the Diccionario Geográfico de Guatemala, records of collapsed literacy centers, accessibility and the investigators' knowledge of the area, the selection of a matching "control" village was narrowed to 17 communities. Each of these communities was visited and detailed data from the 1964 Census collated. El Salitrillo, an aldea in the Municipio of Quezada appeared

to be the best match, located approximately 2 kilometers from a dirt road and reached by a footpath, having a recorded population of 478, all Ladino and Spanish speaking, a subsistence economy principally dependent upon corn and beans, a small school constructed by the residents and no adult literacy program between 1962 and 1965.

After mapping the community and administering literacy tests to the population aged 15-35, two negative factors emerged. No more than 20 literate males in the required age group were available and only 1 in the 30-35 age group. Moreover, several of the literates and many of the potential illiterate sample lived in the caserio of Los Communes which opposed the construction of a new school in El Salitrillo. The residents of the caserio promised little cooperation with a study that involved El Salitrillo.

A proposal to amplify the original design by drawing a stratified random sample from 3 of the communities under consideration as "control" villages was recommended by 2 of the project consultants, Dr. Richard Anderson and Dr. Benjamin Paul who were in Guatemala. The 3 communities, El Salitrillo, El Tule and El Jocote are all located in the Municipio of Quezada and in cross section provide a better match with La Ceibita than any one village alone.

El Tule is more favorably located than the other 2 "control" villages or La Ceibita with respect to availability of water and the quality of land. However, El Tule had neither a school nor a literacy program until 1965 and the children who attended school walked to Santa Gertrudis approximately 2 kilometers away. According to the 1964 Census the population of El Tule was 583.

El Jocote had no school but children attended the school in nearby Quezada, the municipal cabecera. The center of the aldea of El Jocote is located 2 kilometers from Quezada and a road accessible to vehicles. The population of El Jocote was 599 according to the 1964 Census. A literacy program was started in El Jocote in 1962, but collapsed in 1963. Some adults continued their literacy training in an ongoing successful program begun in Quezada in 1962. El Jocote was the subject of an investigation in 1962 and 1963 when 4 families in the community were studied in depth. These families were excluded from the sample

Status	1950 Census Population	1964 Census Population	Distance to <u>Cabacera</u> (kms)	Distance to Vehicle Rds. (Kms)	1950 Literacy Rate	Approx. Elev. School (Meters)		
La Ceibita	Aldea	451	526 ¹	6	3	21%	Yes	1000
El Jocote	Aldea	551	599 ²	1-3.	1	25%	No ³	980
1 Salitrillo	Aldea	377	478	3	1	16%	Yes	980
El Tule	Aldea	339	583	8	8	16%	Yes ⁴	990

Common Features:

No municipal water, electricity, or vehicular roads.

All accessible only on foot.

All Ladino (Spanish speaking).

Home Construction: All contain adobe, bajareque, entoldado and straw with dirt floors.

Economy: Subsistence, based upon corn and beans, few cattle in each. Approximately $\frac{1}{4}$ families in "control" raise tobacco on $\frac{1}{4}$ to 2 manzanas lots.

¹Census by investigator showed 589, excluding those temporarily working at Pacific Coast. Alcalde and school teacher stated population was 938.

²Census taken by investigator in 1962 and verified in 1963 showed population of 751.

³Children attend school in Quezada, a distance of 1-3 kilometers from home. A site for a school was purchased in 1965.

⁴School built in 1965 - Prior to 1965 children attended school in Santa Gertrudis, a distance of 2-3 kilometers.

A literacy census of all individuals 15-35 in the 3 "control" communities was undertaken and a stratified random sample drawn to match the sample drawn in La Ceibita, the "experimental" community:

Literate Sample

15-19 age group:	El Jocote	3
	El Tule.....	4
	El Salitrillo.....	2
	TOTAL.....	<u>9</u>
20-24 age group:	El Jocote.....	2
	El Tule.....	2
	El Salitrillo.....	2
	TOTAL.....	<u>6</u>
25-29 age group:	El Jocote.....	1
	El Tule.....	3
	El Salitrillo.....	3
	TOTAL.....	<u>7</u>
30-35 age group:	El Jocote.....	4
	El Tule.....	4
	El Salitrillo.....	0
	TOTAL.....	<u>8</u>
TOTAL "Control" Literate Sample.....		30

Illiterate Sample

15-19 age group:	El Jocote.....	3
	El Tule.....	5
	El Salitrillo.....	1
	TOTAL.....	<u>9</u>
20-24 age group:	El Jocote.....	3
	El Tule.....	1
	El Salitrillo	2
	TOTAL.....	<u>6</u>
25-29 age group:	El Jocote.....	2
	El Tule.....	4
	El Salitrillo.....	1
	TOTAL.....	<u>7</u>

30-35 age group: El Jocote.....	3
El Tule.....	4
El Salitrillo.....	1
TOTAL.....	<u>8</u>

TOTAL "Control" Illiterate Sample..... 30

Literacy tests were administered to 191 individuals in El Jocote, 149 in El Tule, and 134 in El Salitrillo.

The 10 literate males selected from El Jocote were drawn at random from 45 available literates grouped according to age; the 13 literates from El Tule were drawn from an available literate male population of 25; the 7 literates from El Salitrillo were drawn from an available literate male population of 18.

The available illiterate populations from which samples were drawn in each of the 3 communities were: El Jocote, 74; El Tule, 55; El Salitrillo, 64.

Measuring Instruments

Literacy Test. Levels of literacy were measured by a graduated literacy test developed in Guatemala in 1964. The test involves word recognition, comprehension and writing ability. Copies of the literacy test and other instruments are contained in Appendix E.

Standard Interview. A schedule of 186 items including personal and family data, educational background, economic status and practices, diet, attitudes towards nutrition, health practices, travel, migration, exposure to mass media and use of literacy skills.

Literacy Interest Test (LIT). An 8 card picture test developed for the purpose of eliciting greater quantity and depth of response from an essentially non-verbal population. The subject is presented with a series of 8 cards given in the following order:

1. Family Scene: mother, father, 4 children.
2. Health Scene: one individual seated, one individual in bed.
3. Communication Scene: 2 individuals facing radio.
4. Future Scene: one individual facing mountains.
5. Community Scene: one individual standing facing 4 seated.

6. Work Scene: Two individuals working in field with hoe.
7. Travel Scene: One individual, an approaching bus.
8. Education vs. Work Scene: One individual on road with book, one individual on road with hoe.

Each subject made a free association response followed by structured questions response to each picture. All interviews were tape recorded.

Ladder Rating Interview. A scale designed to reveal self other orientation and attitudes towards change among literates and non-literates. The ladder rating technique, developed by Cantril (1962) was employed by Programa Interamericano Información Popular in 5 urban and semi-urban Guatemalan communities in 1963. A modified 4 step scale was employed in this investigation.

Administration of Tests and Interviews

The administration of tests and interviews was conducted by a team of 5 persons, including the principal investigator, a research assistant, both U. S. citizens, and 3 male school teachers who were born and raised in the Department of Jutiapa. The 3 Guatemalan assistants were given 2 weeks of training in test and interview administration under the supervision of 2 investigators and a consultant. The final phase of training consisted of administration of the full battery of tests and interviews using a portable tape recorder in a typical peasant community and a detailed evaluation of each tape by the entire field team.

Testing was done in 2 stages: 1) the literacy test, followed approximately 1 month later by 2) administration of the standard interview, LIT and Ladder Rating interview in that order. To minimize contamination, all 2nd stage testing in any given community was completed within 3 days. Each interview-test battery averaged 2 hours. Two members of the field team handled interview scheduling, checked individuals who appeared for interviews and tapes. The principal investigator and 3 Guatemalan assistants administered interviews and tests, averaging a total of 16 interviews a day. A total of 156 sub-

jects were interviewed including 26 alternates. Interviews were conducted in conditions affording maximum privacy; in private homes rented for the purpose and schools where available. Subjects were paid \$1.00.

Collation and Analysis of Data

Literacy Interest Test. All LIT (picture story interviews) tapes were transcribed in Guatemala by Guatemalans. Transcriptions were translated into English by a team of bi-lingual Guatemalans and checked by the principal investigator. The LIT interviews were analyzed as follows:

1. The interview data (including both free association and structured responses) from the LIT was rated on 4 scales:

- Scale I: Psychological Functioning: ability to function effectively.
- Scale II: Empathy: ability to interact with the picture, put self into stories with effective use of imagination and fantasy.
- Scale III: Achievement Motivation: expressed active awareness of need of change, improvement through education, better economy, new ideas.
- Scale IV: Frustration: level of dissatisfaction, unhappiness with life conditions.

Independent sets of ratings were obtained. Two U.S. clinical psychologists rated the sample of 120 subjects on the 4 scales. In addition, 3 Guatemalan judges followed the same rating procedure and made their ratings from the original Spanish protocols.

The judges rated each individual in the sample on the 4 scales. These global ratings were based on the entire protocol for each subject. Both U.S. psychologists have their doctorates and extensive experience in making clinical judgments. One of the raters had prior experience with similar protocols gathered in Guatemala in a previous study. The 3 Guatemalan judges are educators with teaching experience in rural communities.

All judgments on all scales were on a forced choice basis, requiring the judge to sort the interviews into 3 equal groups of 40 each. This required ranking each individual as (1 pt.) high, (2 pts.) middle,

or (3 pts.) low on each scale. The present sample thus becomes its own frame of reference for making the judgments.

The judges made their ratings independently after an initial orientation with the project directors and reported being able to work with the scales as defined.

2. A scale was derived from the LIT interview content for responses to each directed question asked with each of the 8 picture cards. Two research assistants independently recorded interviewee responses to each question. A pooled frequency response was tabulated.

3. A word count of questions, answers, and notation of pauses and no response was made of each interview in Spanish transcription.

All of the above were analyzed in terms of literates vs. illiterates, "experimental" literates vs. "control" literates, "experimental" illiterates vs. "control" illiterates and "experimental" village vs. "control" villages.

LIT Reliability. The LIT test has been analyzed to establish inter-judge reliability and inter scale relationships on intra and pooled judge bases. Scales I, II and III appear to be measuring similar factors and are used in both separate and pooled form. Inter-judge correlation using both American and Guatemalan judges were sufficiently high to justify pooling scores on each scale and treating the total as a "score" in the scale. See Appendix D for correlation tables on all scales and judges.

Literacy Test, Standard Interview, Ladder Rating Interview. Data from these instruments was coded for IBM programming. One hundred ninety eight items for each of the 120 individuals were coded. IBM runs were as follows:

1. All items by literates and illiterates in "experimental" and "control" villages.
2. Selected items by type of literacy training (public school only, literacy class only, public school and literacy class).

The frequency distribution of answers to all items by the 4 sample

groups was tabulated and chi squares for all items computed as follows: "Experimental" literates vs. illiterates, "Control" literates vs. illiterates, "Experimental" literates vs. "Control" literates, total "Experimental" vs. total "Control". Seven hundred comparisons of significance of difference were made.

Correlation Matrixes. Two 20 X 20 correlation matrixes were made using the following data:

Matrix I: Individual and group membership, literacy score, functional literacy score (use of literacy skills), pooled judges scores for each of Scales I, II, III of the LIT, a pooled score for the 3 Scales, age, and the 12 items from the ladder Rating Interview.

Matrix II: Individual and group membership, literacy score, pooled LIT scores, mobility, migration practices, knowledge of cause of illness, health practice, radio preference, radio use, movie exposure, mother's and father's literacy, agricultural practices (a pooled score) and the following items from the LIT: perceived value of education, perception of government, use of money, orientation to community/family.

NOTE: The above items from the LIT are scaled judges' ratings of answers to directed questions on the LIT.

APPENDIX B

<u>THE IMPACT OF AN A. I. D. SPONSORED LITERACY PROGRAM ON THE BASE RATE OF LITERACY IN A PEASANT COMMUNITY:</u>		<u>Page</u>
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THE IMPACT OF AN AID SPONSORED LITERACY PROGRAM ON LITERACY RATES

The 1950 Census provides the only baseline for measurement of recent changes in community literacy rates. According to the 1950 Census, the literacy rate among those 7 years and older in La Ceibita, the "experimental" village was 21%. The literacy rate for the 3 "control" villages, combined, was 20%. Literacy rates for the 15-35 age group are not available for the year 1950.

According to tests administered to 680 individuals in the 15-35 age group in the "experimental" and "control" villages, La Ceibita, the community where the A.I. D. sponsored literacy program had operated continuously since 1962 had a literacy rate 14.4% higher than the average of 3 "control" villages. According to the 1964 Census, La Ceibita's literacy rate was 16% higher than the "control" village.¹

Literacy rates for the 15-35 age group are higher than for the population 7 years and older in each of these communities. The literacy rate for one "control" village, El Jocote, (7 + years) is given in the 1964 Census as 27.5% with those over 35 years of age recorded as having a literacy rate of 21.2%, those under 15 a rate of 27.6%, and the 15-35 age group 32.5%.²

¹While literacy status in the 1964 Census was presumably based upon self report, there is evidence that third party report or the judgment of the census taker were involved. In El Salitrillo, 8 individuals listed as literate in the 1964 Census proved by testing to be illiterate and 11 listed as illiterate proved to be literate.

²A literacy census of El Jocote (7 + years) taken in 1962 by the investigators revealed a literacy rate of 22%, 5.5% lower than that reported in the 1964 census. Two factors are believed responsible for the lower rate of literacy among the entire population in 1962 and higher rate of literacy among the 15-35 age group found in 1965. In 1962, 38% of those over 35 who claimed to be literate were found upon being tested to have lost their literacy skill. Nine individuals in the 15-35 group became literate in an adult literacy class conducted in 1962 and 1963.

TABLE 1

Table 1.-- Literacy rates, male and female, reported in 1950, 1964, 1965, by village.

	1950 Census 7 + years	1964 Census 15-35 years (N=615) ³	1965 Testing 15-35 years (N=680) ³
Experimental Village	21%	44.3%	46.5%
Control (3 Villages combined)	20%	28.3%	32.1%
Control by Village:			
El Salitrillo	16%	26.8%	29.5%
El Jocote	25%	32.5%	37.8%
El Tule	16%	20.2%	26.6%

The impact of the adult literacy program shown in these comparisons is obscured by the fact that a literacy program did operate for at least a year in 2 of the "control" villages and some individuals of the third village, El Tule, learned to read and write by themselves or in the Army using the instructional materials of the A.I.D. sponsored program. Of the tested literates in the "control" villages, 16.1% achieved literacy through A.I.D. sponsored literacy materials. Had there been no literacy instruction available in the "control" villages, the combined "control" literacy rate would have been 25.5% rather than 32.1%.

The extent to which literacy rates in each of the communities was affected by the literacy program is shown in the following table.

³The total number of individuals 15-35 years old censused in April 1964 and October-November 1965 is smaller than the actual number with established residence in these communities because of temporary migration. Seasonal migration in April 1964 was heavier than in October-November 1965. While illiterates account for the bulk of migrants, a higher percentage of literates migrate than illiterates. In the "control" village of El Salitrillo, for example, of the 58 individuals tested by the investigators in 1965 and who did not appear on the 1964 Census, 32.8% were literate, while 26.8% of those who remained in the community and were included in the Census were literate.

TABLE 2

Table 2. -- Per Cent of literates, (male and female, 15-35) who achieved literacy via literacy materials and public school.

	Literacy Program	Public School
Experimental Village (La Ceibita)	50%	50%
Control Villages:		
El Salitrillo	14.6%	85.4%
El Jocote	16.8%	83.2%
El Tule	15.9%	84.2%
Combined Control	16.1%	83.9%

Short lived literacy programs in 2 of the "control" villages were conducted by male teachers and only males attended. Fourteen males in El Jocote and El Salitrillo learned to read and write in adult literacy programs. Seven males in El Jocote and El Tule learned to read and write by themselves or with the help of other literates using the Juan Books. Three learned by the Juan Books while serving in the Guatemalan Army.

In La Ceibita, literacy classes were conducted by the public school teacher, a female, and by 2 voluntary male teachers. Here, as in many communities where literacy classes were conducted by female teachers in the afternoon, the literacy rate of the female population was affected. Fourteen women, or 30 per cent of the literate female population in the 15-35 age group, attended literacy classes.

Further evidence of the impact of the literacy program in La Ceibita is given by the following comparison of literacy rates of the siblings, 7 years and older, of the 120 male subjects from La Ceibita and the "control" villages selected for more intensive study.

TABLE 3

Table 3. -- School attendance and literacy rates of siblings of 30 literates and 30 illiterates from "experimental" and "control" villages. (N=549)

	Males % attended school	% Literate	Females % attended school	% Literate
<u>Experimental:</u>				
Siblings of 30 Literates	39.7%	51.1%	51.6%	58.3%
Siblings of 30 illiterates	45.3%	44.0%	23.8%	20.6%
Average Exp.	42.4%	47.7%	37.4%	39.0%
<u>Control:</u>				
Siblings of 30 Literates	45.0%	38.0%	40.2%	32.8%
Siblings of 30 illiterates	36.3%	14.2%	20.6%	13.7%
Average Control	40.5%	25.7%	31.2%	24%

These data indicate that an adult literacy program stimulates interest in education throughout a community and provides through continuing education opportunity to increase literacy skills introduced in the first year of public school. In rural communities of the Department of Jutiapa approximately 50% of those who enter school do not progress beyond the first year and do not achieve literacy. In the case of the 3 "control" villages, 15% more males attended school than achieved literacy and 7.2% more females attended school than attained literacy. In La Ceibita the situation is reversed. The percent of literates among both males and females is higher than the percent who attended school.

Literacy Test Scores of the Sample

The "experimental" sample from La Ceibita was drawn 1) from males who had achieved literacy within the past 2 years through and A.I.D. sponsored literacy program for adults and who scored highest on the

literacy test, 2) from illiterate males without literacy training. Males in La Ceibita who achieved literacy in the public school and did not attend the literacy class were not included in the sample. The "control" group was selected by stratified random sampling among

- 1) literate males in El Salitrillo, El Jocote, and El Tule, and
- 2) illiterate males in the same communities.

The mean literacy test score of La Ceibita literates was 11.30 compared with a mean of 10.03 for the "control" villages. Four of the "control" literate sample scored 6 or below on the literacy test and must be considered "threshold" literates.⁴ In each of these 4 cases no alternate subjects with higher literacy scores were available. None of the illiterate sample had a score above one.

TABLE 4

Table 4. -- Literacy scores of selected literate sample

Literacy Scores	Experimental (La Ceibita)	Control Villages
1	0	0
2	0	0
3	0	0
4	0	2
5	0	0
6	0	2
7	0	1
8	0	0
9	1	3
10	3	6
11	12	5
12	14	11

⁴Literacy test scores are interpreted as follows: Functional literate scores of 11 and 12; Adequate, 9 and 10; Low adequate 7 and 8; threshold, 3,4,5,6; illiterate, 1 and 2. See Appendix E for explanation of scoring.

APPENDIX C

DIFFERENCES BETWEEN COMMUNITIES;
A COMPARISON OF CHARACTERISTICS
BASED UPON THE SAMPLE:

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A. COMPARISON OF CHARACTERISTICS

Recent acquisition of literacy cannot be expected to affect the factors of place of birth, housing, family education, marriage, number of children, work patterns, land ownership etc. discussed in the following section. Many of these factors, however, may affect literacy and provide the context in which literacy is undertaken. This section also presents the differences and similarities between La Ceibita and the "control" villages and between neo-literates in La Ceibita, literates in the "control" villages and illiterates in the 2 communities which cannot be ascribed to the literacy status of the subjects.

Birthplace and mobility.

The entire sample of 120 males was born in rural communities of the Department of Jutiapa, and 114 had remained in the community of their birth. Fourteen had lived briefly in other aldeas, 2 in cabeceras, and 2 in Guatemala City. Sixty-six had left their communities within the past 5 years to work for a month or more along the Pacific Coast. These returned to their homes. There are no important differences in these areas among the 4 sample groups.

TABLE 5

Table 5.-- Birthplace of sample population N=120

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Same Community	27	30	28	29
Other Rural	3	0	2	1

TABLE 6

Table 6.--Other residence of sample

	Experimental (La Ceibita)		Control Village	
	Literate	Illiterate	Literate	Illiterate
None	14	11	8	12
Other rural	1	4	5	4
<u>Cabecera</u>	0	0	1	1
Guatemala City	0	0	2	0
Seasonal Migration	15	15	14	13

Education.

While all of the "experimental" literate sample attended the adult literacy class, 14 had also attended public school. Seven of the latter attended school one year or less and did not achieve literacy in school. However, 7 did advance beyond the first grade and are presumed to have achieved literacy before attending literacy classes and to have increased their literacy skills while in attendance. Among the illiterate "experimental" sample, 2 attended public school one year and 2 the literacy class for at least a month.

Among the literate "control" sample, 15 attended public school, 1 attended public school and a literacy class and 14 either attended literacy classes or learned by themselves using books of the adult literacy class. The literate "control" sample, drawn on a random basis, includes a higher percentage of literates who attended literacy classes than the literate populations of these 3 communities. Four individuals included in the literate "control" sample had literacy test scores below 7 and are considered "threshold" literates. Two of these attended school for 3 years but did not advance beyond the first grade, 1 completed the second grade and subsequently lost the literacy skill required of second grade and 1 studied on his own account.

TABLE 7

Table 7.-- Education of Sample

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
No education	0	25	0	27
School only	0	2	15	3
Literacy Class only	16	3	9	0
School and Literacy Class	14	0	1	0
Self Educated	0	0	5	0

Parents' Birthplace.

There are no important differences among the 4 sample groups in the birthplace or mobility of their parents. One hundred four of the fathers were either born in the same community or a nearby rural village. Fourteen were born in the cabecera of the municipality and one in an urban community. One hundred eight of the mothers were born in rural communities and 12 in the local cabe-cera.

Education and literacy of parents.

Where the mother has been to school the child is seldom illiterate. The differences between the education of mothers of literates and illiterates is significant at the .01 level. The father's education is also an important factor in the literacy of the child. The school attendance of parents appears to be a more important factor in children's literacy than the literacy of parents. These observations are true of literates and illiterates in both the "experimental" and "control" villages.

TABLE 8

Table 8.-- Mother's Education

	Significance	Interpretation
Total: Literate/Illiterate	.01	Literate > Illiterate
Exp. Literate/Illiterate	Not Sig.	Literate > Illiterate
Control: Literate/Illiterate	.05	Literate > Illiterate
Literates: Exp./Control	Not Sig.	Control > Experimental
Total: Control/ Experimental	Not Sig.	Same

TABLE 9

Table 9. -- Father's Education

	Significance	Interpretation
Total: Literate/Illiterate	Not Sig.	Literate > Illiterate
Exp. Literate/Illiterate	Not Sig.	Literate > Illiterate
Control: Literate/Illiterate	Not Sig.	Literate > Illiterate
Literates: Exp./Control	Not Sig.	Same
Total: Control/Experimental	Not Sig.	Same

TABLE 10

Table 10.-- Mother's Literacy

	Significance	Interpretation
Total: Literate/Illiterate	.04	Literate > Illiterate
Exp. Literate/Illiterate	Not Sig.	Literate > Illiterate
Control: Literate/Illiterate	.04	Literate > Illiterate
Literates: Exp./Control	Not Sig.	Control > Exp.
Total: Control/Experimental	Not Sig.	Same

TABLE 11

Table 11.-- Father's Literacy

	Significance	Interpretation
Total: Literate/Illiterate	.06	Literate > Illiterate
Exp. Literate/Illiterate	Not Sig.	Literate > Illiterate
Control: Literate/Illiterate	.04	Literate > Illiterate
Literates: Exp./Control	Not Sig.	Same
Total: Control/Experimental	Not Sig.	Exp. > Control

Marital Status and Children

Approximately half of each sample group was married or living with a companion. Among these there are no significant differences in the education or literacy of wives or companions, in the average number of children, the number of illegitimate children or the number of deceased children.¹

TABLE 12

Table 12.-- Marital status

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Single	14	15	12	17
Married	14	13	13	13
Living with Companion	2	2	5	0

TABLE 13

Table 13. -- Wife's education

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
No education	9	7	9	8
Attended school but did not complete 1st grade	0	2	1	0
Completed 1 yr.	1	2	4	2
Completed 2 or more years	6	4	4	3

¹Unrecognized children do not carry the names of the father and are seldom reported by males. In a study of El Jocote, conducted in 1962 and 1963, interviews with females revealed that 11 per cent of the children born to literate females were illegitimate while 24.9 per cent of the children of illiterate females were illegitimate. Wright, P. C., "Literacy and Custom in a Ladino Peasant Community," University Microfilms Inc., Ann Arbor, Michigan, 1967.

TABLE 14

Table 14. -- Average number of living children (married or living with companera)

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Average number living children per couple	3.0	2.4	2.4	2.7

TABLE 15

Table 15. -- Illegitimate children

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Number reporting illegitimate children	0	4	2	2
Number illegitimate children reported	0	7	4	7

TABLE 16

Table 16. -- Deceased children

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Number reporting deceased children	5	2	5	6
Number deceased children reported	6	2	6	7

Housing and Living Conditions

Differences in housing, furnishings; water supply, lighting and living conditions are presumed attributable to differences in local community custom and resources rather than to the literacy of the parents of the sample. Bajareque house construction is more common in La Ceibita than in the "control" villages where adobe is principally used. Tile roofs are more common in the "control" villages and straw in La Ceibita. Houses are of approximately the same size in both communities and nearly all in both communities have earth floors. The use of tile roofs in the "control" villages leads to the extended roof with corredor beneath and placing the kitchen under the corredor, a "separate kitchen."

The bajareque house (frame construction with horizontal poles lashed to uprights and the frame filled with clay) with straw roof, though a less expensive and less desirable construction than adobe with tile roof, is claimed in La Ceibita to be resistant to earthquakes.²

Both literates and illiterates in all villages draw water from rivers. Two have latrines. None have electricity and most use a wick in a can of kerosene for lighting. The use of pitch pine for lighting in the "control" villages is accounted for by an abundance of pine in the hills above the Quezada Valley. No pine is immediately available in La Ceibita.

² While few houses in La Ceibita are of adobe construction or have tile roofs, and none have tile or brick floors, the school built by the community and the only public building in La Ceibita is of adobe, has a tile roof, ladrillo (tile) floor, and windows with wooden shutters. The community was planning to plaster the inside and outside of the building when funds could be raised.

TABLE 17

Table 17. -- House Construction

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Adobe	8	1	21	19
Bajareque	14	16	7	9
Entoldado	3	4	2	1
Straw	5	9	0	1

TABLE 18

Table 18. -- Roof Construction

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Tile	10	5	28	24
Straw	16	24	2	6
Other	4	1	0	0

TABLE 19

Table 19. -- Floor Construction

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Tile	0	0	1	2
Earth	30	30	29	28

TABLE 20

Table 20. -- Location of Kitchen

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Separate Kitchen	9	6	24	17
Kitchen in House	21	24	6	13

TABLE 21

Table 21.-- Number of Rooms

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
One room	25	22	22	23
Two rooms	5	6	6	5
Three rooms	0	2	2	2

TABLE 22

Table 22. -- Average number of beds in House, average number of persons per bed

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Average number of beds	2.5	2.5	3.0	3.0
Average number of persons per bed	2.47	2.16	1.95	2.04

TABLE 23

Table 23. -- Source of Light

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Kerosene	30	30	23	22
Pitch Pine	0	0	7	7
Candle	0	0	0	1

TABLE 24

Table 24. -- Sanitation

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Field	29	30	29	30
Latrine	1	0	1	0

TABLE 25

Table 25. -- Source of Water

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
River or spring	30	30	28	30
Well	0	0	2	0

NOTE: Although all but 2 households in the sample from the 4 communities draw water from either a river or a spring, water is more readily available the year round in the "control" villages than in La Ceibita. Households in El Salitrillo, El Jocote and El Tule are not more than 1 kilometer from streams that flow all year. La Ceibita is supplied with water from June to October by a small stream that runs through the village. For the balance of the year, water must be carried a distance of 4 kilometers.

Economics

Ladino peasants, aged 15-35, are largely dependent upon land owned by their fathers and are responsive to the will of the fathers. Reported land ownership and economic practices, with the exception of work for wages, are most frequently those of the household of which the subject is a member.

On the other hand, attitudes towards agricultural productivity, alternate ways of life and the use of money, while heavily influenced by family and custom, are presumed to reflect more accurately the education, including literacy training, of the subjects.

Work Patterns and Land Ownership

All subjects in both the "experimental" and "control" communities worked on agriculture. One hundred of the 120 subjects owned no land and 60% worked on land owned by their father or other relative. Approximately $\frac{1}{4}$ of the landless rented small parcels of land. The 20 who owned land were over 25 years of age and land ownership averaged 2.68 manzanas. While the death of the father and inheritance accounted for all land ownership, several of the landless inherited nothing upon the father's death.

The pattern of land ownership differs between the "experimental" and "control" villages but not between literates and illiterates. One-half of the sample in La Ceibita either owned or rented land and were therefore, independent. This compares with a little over a quarter of the "control" sample who either owned or rented land.

TABLE 26

Table 26. -- Work Pattern
and Land Ownership

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Neither own nor rent land; work land of relative	13	17	20	23
Own land and work land	7	3	3	4
Rent and work land	10	8	7	2
Both rent and own land	0	2	0	1

TABLE 27

Table 27. -- Land ownership and land rented (average number of Manzana). Manazana = 1.7 acres

	Experimental Literate	(La Ceibita) Illiterate	Control Villages Literate	Illiterate
Owned by subjects	4.14	3.0	1.93	1.63
Owned by parents	11.2	7.1	5.7	4.2
Rented by subjects	1.9	2.6	1.5	2.5

TABLE 28

Table 28. -- Age as a factor in land ownership: those who either owned or rented land (as per cent of age group)

Age Group	Per Cent either owning or renting land
15-19	30.6%
20-24	29.2%
25-29	42.9%
30-35	53.2%

Net Worth

The amount of land, livestock and the value of houses reported by literates in "experimental" and combined "control" villages is greater than that reported by illiterates. The difference is greatest between literates and illiterates in La Ceibita. In 2 of the "control" villages, El Salitrillo and El Tule, the value of these reported possessions is greater among illiterates.

Sharp differences are revealed when net worth is related to education, not literacy, of members of the household over 7 years of age.

Where average net worth is highest, more members of the family have attended school. While both highest net worth and highest school attendance were found in El Tule, few of those who went to school attended more than one year and did not become literate.

TABLE 29

Table 29. -- Average Net Worth³ (based upon land, livestock and housing)

Experimental (La Ceibita)		Control Villages	
Literate	Illiterate	Literate	Illiterate
5.88	4.15	6.96	6.70

TABLE 30

Table 30. -- Net Worth/ Household education

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Where half or more of household attended school	6.10	5.81	8.57	8.37
Where less than half attended school	5.77	3.54	5.56	5.44
Where none attended school	5.66	3.31	5.00	5.95

³An index of net worth for the household of each subject was computed as follows: $\frac{1}{2}$ point for each cow, horse and ox; 1 point for each manzana of land; houses from 1 to 3 points (adobe 3 pts., bajareque 2 pts., entoldado 1 pt.) Each point is worth approximately \$100.00

Corn and Bean Production.

While there is a difference between the "experimental" and "control" villages in the amount of land owned by subjects and their fathers the amount of land reported planted to corn and beans was about the same (range 2 - 2.3 manzanas) for households of all subjects. The differences between land owned and land planted can be accounted for by the fact that more of the land in La Ceibita is unsuitable for agriculture. There is little difference between communities in average corn and bean productivity which is among the lowest in Guatemala. Literates in both "experimental" and "control" villages report higher corn production than illiterates. Bean productivity shows no pattern.

TABLE 31

Table 31. -- Corn and Bean Productivity
(Quintal = 103 lbs.)

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
<u>Quintales corn per manzanas</u>	9.88	7.46	9.25	7.77
<u>Quintales beans per manzanas</u>	6.84	5.03	6.35	7.10

Use of Fertilizer.

Twenty-eight of the 120 subjects reported using fertilizer in 1965. Of these, 21 were in the "control" villages where relatively greater accessibility and the customary use of fertilizer for tobacco are influential factors. In the "control" villages there was no significant difference between literates and illiterates in the use of fertilizer. In La Ceibita, 6 literates and 1 illiterate reported using fertilizer for corn in 1965.

Economic Practices.

Despite the small holdings of cultivable land and the low productivity throughout Jutiapa, corn and bean production of the campesino.

are the backbone of the economy of the department. Corn was planted by subjects in all communities and beans by over two-thirds of the subjects. Although the amount of corn and beans produced by the "experimental" and "control" samples was approximately the same, economic practices differ in important respects between the "experimental" and "control" villages and between literates and illiterates.

The literate sample in La Ceibita owned nearly twice as many grain storage bins as any other sample and reported more corn and beans in storage. Fewer literates in La Ceibita were required to buy corn and beans to meet family requirements and more reported selling corn and beans than any other sample. Among the 4 samples only the La Ceibita literate showed a favorable balance of sales over purchases of corn and beans.

In both communities, literates sold significantly more corn and beans than illiterates. Literates received a total of \$1025 and illiterates \$577 from sales of the 2 products. There was little difference between "experimental" and "control" villages in the amount of income. Both literates and illiterates in all communities bought about the same amount of corn and beans, literates paying \$1,116.50 and illiterates \$1,183.00.

TABLE 32

Table 32.---Economic Practices

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Average number storage bins	3.03	1.7	1.6	1.7
Totals for each sample:				
Corn in storage (quintales)	635	390	473	478
Corn sold (quintales)	34	30	72	34
Beans in storage (quintales)	111	70	51	74
Beans sold (quintales)	53	29	49	20
Sales of corn and Beans (\$)	\$445.00	\$291.00	\$580.00	\$288.00
Purchases of corn and beans (\$)	\$343.75	\$448.00	\$772.75	\$735.00

The average selling price for corn was higher in El Salitrillo, El Jocote and El Tule than in La Ceibita. Buying prices were about the same for all communities but were considerably higher than selling prices. The sale of corn at harvest time seldom meant a gain, for most households ran short before the next harvest and bought at higher prices than they sold. Most sales at low prices were by individuals without storage facilities. The campesino in all villages paid considerably more for beans than he sold them for at harvest time, but prices did not vary greatly between villages.

TABLE 33

Table 33.-- Average selling and buying prices for corn and beans

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
CORN:				
Selling price per quintal	\$2.71	\$2.66	\$3.16	\$4.47
Buying price per quintal	\$4.25	\$4.33	\$4.68	\$4.61
BEANS:				
Selling price per quintal	\$6.77	\$7.27	\$7.20	\$6.82
Buying price per quintal	\$8.42	\$7.48	\$8.35	\$7.76

Low productivity in the face of population growth, the unfavorable balance between sales and purchases of the area's 2 principal products and the necessity to supplement income through migratory work are the principal problems of the campesino and are recognized by him.

All campesinos are concerned with greater production and the majority are knowledgeable about ways to increase production. While literacy is not commonly perceived as having directly influenced the differences in economic practices cited above, awareness of the need to improve these conditions and that the literate seems to do better is

a spur to the acquisition of literacy.⁴

Livestock ownership

Although the Department of Jutiapa is one of the principal cattle producing areas of Guatemala, production is concentrated in the hands of a relatively few large fincas with absentee owners. The average campesino owns no cows or oxen. Among the sample of 120, less than one-quarter owned milk cows or heifers and 14 owned oxen. Differences in ownership are between communities, not between literates and illiterates. The "control" communities have easier access to water the year round and better potential pasture land, although most of this is given over to crop production.

The majority in each community owned pigs, chickens, a horse or mule. More horses and mules were owned in the "control" villages than in La Ceibits, but there were no significant differences between communities or between literates and illiterates. Ninety-nine of the 120 owned an average of 12 chickens. Ownership and distribution were fairly evenly distributed among the communities and among the literates and illiterates. Few of the chickens were laying hens and these seldom produced more than 1 or 2 eggs a week.

Wages and Income for Services.

Although about half of the literates and illiterates in the "experimental" and "control" samples worked for wages, there are differences between communities and between literates and illiterates in migratory and local work, the amount of daily wages received and the number of days worked in the year 1965. More opportunities exist for local employment in the Quezada Valley where the 3 "control" villages are located. With little opportunity for employment in the Municipio of Zapotitlan the men of La Ceibita migrate to the Pacific Coast to work under contract

⁴The spur to literacy given by declining per capita production was found in earlier studies by the investigators' (Wright, P. C., Rich T. A., 1965 and Wright, P. C., 1967.)

in cotton and sugar. Piece work wages of the Pacific Coast provide a higher daily income than the usual 40¢ - 50¢ paid for a day's work in the Quezada Valley or elsewhere in Jutiapa. The availability of local work appears as important a factor in migration as the higher wages paid on the Pacific Coast. Work on the Coast is less desirable because of what campesinos describe as poor working conditions, the high incidence of malaria and absence from the family. Workers report that the higher wages paid are often consumed by extra medical expenses.

The literate sample from La Ceibita differs from all others in the following respects: more migrated to the Coast, they received higher average wages, and the average number of days worked was greater.

TABLE 34

Table 34.--Work Patterns and Wages

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Number worked in 1965	15	16	15	17
LOCATION:				
Local	2	6	12	8
Coast	13	10	3	9
Average wages received	82¢	66¢	56¢	67¢
Average number of days worked	47.7	23.5	32.2	42

Only 5 of the total sample reported income for non-agricultural services and these were scattered among both literates and illiterates in different communities. Three reported income as musicians totalling \$45.00. One reported income of \$35.00 as a bricklayer and one an income of \$40.00 from the sale of building materials.

Loans and Government Help

While both literates and illiterates are acutely aware of the need for increased productivity in the face of diminishing per capita land and know the value of fertilizer, few individuals have applied for or received the outside financial assistance needed to use fertilizer.

Four individuals, all literate, reported receiving crop loans. Two in La Ceibita received a loan from SCICAS (Servicio Interamericano de Credito Agrícola Supervisado). In the "control" villages one received a SCICAS loan and another a loan from the Banco Agrario.

Four individuals, 2 literate and 2 illiterate, all from the "control" villages reported having "asked the government for help." None reported receiving help.

APPENDIX D

<u>DIFFERENCES IN ATTITUDES AND MODE OF LIFE:</u>	<u>Page</u>
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DIFFERENCES IN ATTITUDES AND MODE OF LIFEHealth: Practices and Understanding

Health practices and understanding the causes of illness appear to relate directly to education and literacy. Literates in all communities expressed a greater awareness of the causes of illness, and those who attended the A.I.D. sponsored literacy class showed greater awareness than the "control" literates.

While differences in diet reflect wealth, ownership of cows and pasture, attitudes towards diet and knowledge of dietary supplements also reflect the literates' exposure to education.

Health

Literates show significantly greater understanding of the causes of illness and exceed illiterates in dental care and in the number who have medicines in the home. La Ceibita literates bathe more frequently than the "control" literates.

Awareness of the cause of illness was measured by responses to 1) standard interview questions and 2) LIT card # 2.¹

TABLE 35
Table 35.--Awareness of Illness
(LIT # 2)

	Significance	Interpretation
Total: Literate/Illiterate	.01	Literate > Illiterate
Exp. Literate/Illiterate	.001	Literate > Illiterate
Control: Literate/Illiterate	Not Sig.	Literate > Illiterate
Literates: Exp./Control	.05	Exp. > Control
Total: Control/Experimental	Not Sig.	Exp. > Control

¹In the standard interview, subjects were asked to name the most common illnesses in their family, the symptoms, causes of the illness and what they do to cure the illness. The answers were rated by 2 judges as 1) high or general awareness, and 2) minimal or no awareness: unable to answer, superstitious. Responses to card # 2 of the LIT were rated in the same manner.

TABLE 36

Table 36.-- Frequency of bathing
at least weekly/less than weekly ²

	Significance	Interpretation
Total: Literate/Illiterate	Not Sig.	Literate > Illiterate
Exp. Literate/Illiterate	.05	Literate > Illiterate
Control: Literate/Illiterate	Not Sig.	Literate > Illiterate
Literates: Exp./Control	.01	Exp. > Control
Total: Control/Experimental	.05	Exp. > Control

TABLE 37

Table 37. -- Dental Care: Use tooth
brush/don't use tooth brush

	Significance	Interpretation
Total: Literate/Illiterate	.02	Literate > Illiterate
Exp. Literate/Illiterate	.01	Literate > Illiterate
Control: Literate/Illiterate	Not Sig.	Literate > Illiterate
Literates: Exp./Control	Not Sig.	Control > Exp.
Total: Exp./Control ^u	.01	Control > Exp.

TABLE 38

Table 38.--Medicines in the home: have/have not

	Significance	Interpretations
Total: Literate/Illiterate	.02	Literate > Illiterate
Exp. Literate/Illiterate	Not Sig.	Literate > Illiterate
Control: Literate/Illiterate	.02	Literate > Illiterate
Literates: Exp./Control	Not Sig.	Control > Exp.
Total: Exp./Control	Not Sig.	Control > Exp.

Nutrition: Practices and Understanding

The campesino's standard diet of tortillas and black beans is governed by a short growing season and an ability to store corn and beans throughout the year. The scarcity of productive land discourages growing those crops which cannot be dried for storage. Differences in diet are governed by wealth: those with either enough land to pasture a cow and to supply milk and cheese or enough cash occasionally to supplement their diets with milk and cheese.

The diet of the literate samples is significantly more varied than that of the illiterate. However, no one among the total sample of 120 reported eating beef, chicken, pork, fruits or vegetables daily. Fruits and vegetables in season are not often eaten more than once a week. Meat, fruits and vegetables are the items which most campesinos would like to eat, given a choice, and these are the items for which the literate most often expresses a preference. Those who mentioned only corn and beans when asked what they would choose to eat are probably illiterate.

Knowledge and use of Incaparina, a dietary supplement is related to literacy in all communities.

Breakfast

Two-thirds of the sample eat only tortillas and frijoles for

There are no significant differences between any of the 4 samples, although literates report having more cheese, milk and coffee for breakfast than illiterates.

Lunch

Literates differ significantly from illiterates in supplementing the "standard" lunch of tortillas and frijoles with cheese and occasional meat and vegetables. There are no differences between the literate samples of the "experimental" and "control" villages or between the illiterate samples.

Supper

The greatest difference in diet occurs at supper. Literates report greater variety (Significant at .001 level) and the La Ceibita literate sample reports greater variety than literates in the "control" or all illiterates. There is no significant difference between "control" literates and illiterates in the reported variety of supper.

The "control" samples report both a greater variety in their total daily diet and greater frequency of supplements to corn and beans. The differences are principally in the amount of milk, cheese and beef consumption.

TABLE 39

Table 39.-- Dietary Supplements
(Standard Diet vs. Supplement Diet)
(All literates vs. All illiterates)

	Significance	Interpretation
Breakfast	Not Sig.	Same
Lunch	.01	Literate > Illiterate
Supper	.001	Literate > Illiterate

TABLE 40

Table 40.-- Lunch (Standard diet vs.
Supplement diet)

	Significance	Interpretation
Literates/Illiterates'	.01	Literate > Illiterate
Literates: Exp./Control	none	Same
Illiterates: Exp/Control	none	Same

TABLE 41

Table 41.--Supper (Standard diet
vs. supplemental diet)

	Significance	Interpretation
Total: Literate/Illiterate	.001	Literate > Illiterate
Exp. Literate/Illiterate	.01	Literate > Illiterate
Control: Literate/Illiterate	Not Sig.	Literate > Illiterate
Literates: Exp./Control	Not Sig.	Exp. > Control
Total: Exp./Control	Not Sig.	Control > Exp.

The following tables show the general pattern of use of supplemental foods.

TABLE 42

Table 42.--Pattern of consumption
of supplemental foods.

	Daily or More than weekly	Weekly or Less	Never
Milk	33	67	20
Cheese	52	59	9
Beef	36	78	6
Chicken	18	98	4
Pork	16	86	18

TABLE 43

Table 43.-- Literates vs. Illiterates
in consumption of specific foods.

	Significance	Interpretation
Milk	.01	Literate > illiterate
Cheese	.05	Literate > Illiterate
Beef	Not Sig.	Same
Chicken	Not Sig.	Same
Pork	Not Sig.	Same

Consumption of Fruits and Vegetables

Literates report eating a greater variety of fruits and vegetables and with more frequency than illiterates and the "control" more than the "experimental" sample. However, there are no significant differences between the 4 samples either in variety or frequency of consumption.

TABLE 44

Table 44.-- Variety of vegetables reported consumed (Avg. # reported)

La Ceibita Literate	3.5
La Ceibita Illiterate	2.8
Control Literate	3.8
Control Illiterate	3.2

TABLE 45

Table 45.-- Frequency of consumption of vegetables (In Season)

Daily	2
At least once a week	81
Less than weekly	37

TABLE 46

Table 46.-- Variety of Fruits reported consumed (Avg. # reported)

La Ceibita Literate	2.8
La Ceibita Illiterate	2.7
Control Literate	3.1
Control Illiterate	2.9

TABLE 47

Table 47.-- Frequency of consumption of Fruits (In Season)

Daily	7
At least once a week	84
Less than weekly	29

Choice of Diets

Answers to the question, "If you had the opportunity to choose your food, what kind of foods would you select," produced but one significant difference in the answers of literates and illiterates; illiterates more often (at the .01 level of significance) would select tortillas and frijoles. When answers were broken down into frequency of mention of meat, milk products, vegetables and fruits, literates more often mentioned each of these. Meat is the overwhelming choice of the campesino. While 102 reported eating pork only 1 would select to eat pork.

TABLE 48

Table 48.-- Food you would like to eat (Total Sample)

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Meat, (Beef, chicken, pork)	28	22	30	19
Milk and Milk products	11	11	18	10
Eggs	5	4	4	2
Vegetables	7	2	11	5
Fruits	0	0	1	0
<u>Tortillas</u> & <u>Frijoles</u>	2	8	0	11

What foods are best for you?

To the question, "What foods are best for you, for your body, literates gave more responses and mentioned a greater variety of foods. La Ceibita illiterates gave the fewest number of responses and mentioned the least variety.

Milk, cheese and eggs were most frequently mentioned as best for the body by both literates and illiterates. Literates mention fruits and vegetables more frequently than illiterates. However, only about one quarter of the sample mentioned fruits and vegetables. No subjects mentioned pork as good for the body. Few mentioned tortillas and frijoles.

TABLE 49

Table 49. -- What foods are best for you?
(Frequency of response by sample group)

	Experimental (La Ceibita)		Control Villages		TOTAL
	Literate	Illiterate	Literate	Illiterate	
Milk, milk products	22	16	22	22	82
Eggs	13	6	19	17	55
Meat, (Chicken, beef)	10	6	10	6	32
Fruits	4	2	9	4	19
Vegetables	6	2	7	0	15
<u>Tortillas, Frijoles</u>	5	5	0	3	13
TOTALS	60	37	67	52	216

Incaparina

Incap (Instituto Nutricional de Centro America y Panama) has developed and made widely available through stores in aldeas an inexpensive dietary supplement in powder form which is mixed with water or milk. Incaparina resembles atoles, a mixture of ground corn and water which is familiar to the campesino. The product has been widely publicized in Guatemala and throughout Central America. A packet of 4 servings costs .04¢.

Literates in both the "experimental" and "control" villages know about and use Incaparina more than illiterates, and those in the "control" villages more than the "experimental". The greater accessibility of stores to the "control" villages noted earlier largely accounts for the differences between the "experimental" and "control" samples.

TABLE 50

Table 50.-- Knowledge and use of
Incaparina (all subjects)

Knowledge:		Use:	
Know Incaparina	47	Use Incaparina	26
Don't know	73	Have not used	94

TABLE 51

Table 51. -- Knowledge of Incaparina

	Significance	Interpretation
Total: Literate/Illiterate	.001	Literate > Illiterate
Exp. Literate/Illiterate	.04	Literate > Illiterate
Control: Literate/Illiterate	.01	Literate > Illiterate
Literates: Exp./Control	.01	Control > Exp.
Total: Exp./Control	.001	Control > Exp.

TABLE 52

Table 52.-- Use of Incaparina

	Significance	Interpretation
Total: Literate/Illiterate	.01	Literate > Illiterate
Exp. Literate/Illiterate	Not Sig.	Literate > Illiterate
Control: Literate/Illiterate	.02	Literate > Illiterate
Literates: Exp./Control	.01	Control > Exp.
Total: Exp./Control	.001	Control > Exp.

Attitudes toward community and government

A sense of community uncommon to the Ladino peasant is related to literacy and is presumed a product of the socialization process of literacy classes as well as public schooling. The isolated communities and subsistence economy of the Ladino peasant of Jutiapa reinforce the family as the cohesive factor in the social structure. The illiterate most often thinks of community and betterment for the community in terms of improvement for himself and his family. The literate has a greater sense of interfamily dependence and speaks of plans and needs

that would benefit the entire community.

The differences between literates and illiterates in their attitudes towards community are revealed in answers to 2 LIT questions, "These men are talking about a plan for their community. What kind of a plan do you think it could be?" and "What is the most important thing they could do to better their village?" The answers of 81 of the 120 subjects are plans and improvements that would benefit the individual. Thirty-nine spoke of plans for the community: school, better roads, a public water system. Twenty-six of those who mentioned a community project were literate and 13 illiterate.

TABLE 53

Table 53. -- "What kind of a plan could it be?
What is the best thing they could do for their
community?"

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Answers oriented to self, family	20	28	14	19
Plan for community: school, water, roads	10	2	16	11

Literates > Illiterates Significant
Difference at .02 level.

More literates than illiterates see the government as "welfare oriented" and look to it for help. Of those who would ask help from the government, more literates than illiterates expect the government to give them help. There are no important differences between the attitudes of the La Ceibita and "control" literates, or between the 2 groups of illiterates. In short, school attendance and literacy whether via public school or the adult literacy classes appear to promote both a greater sense of community and greater expectations of government interest in their problems.

To the questions "This man has been asked to take a message to the president. What do you think the message would be?" and "What will the

president's answer be?" 48 replied that help was being asked of the president; ranging from help for the individual to help for the community in building a school or water supply. Thirty-one of the 48 were literate.

TABLE 54

Table 54. -- "What will the message to the President be?" (Those who see government as welfare oriented)

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Message asks for help and help is given	10	2	11	4
Message asks for help but help not given	3	6	7	5
Don't know, unintelligible, ³ "a message", etc.	17	22	12	21

Literates > Illiterates Significant
Difference at .001 level

Travel and Seasonal Migration

Literates in all communities are significantly different from illiterates on some measures of travel mobility, exposure to radio, radio preference and exposure to movies.

Travel.

In all communities literates had travelled for a greater variety of reasons, travelled more frequently and were the first in their communities to migrate seasonally.

While illiterates' purpose for travel was more often work in other areas, literates travelled more frequently to make purchases,

³ Answers distributed as follows: 31, including 19 illiterates, were unable to give an answer, 11 gave unintelligible answers, 4 answered that the president wanted money, 3 concerned the Census, 2 answers were about bandits and the balance answered that it was a message whose contents they did not know.

visits friends and see the cities. (Significant difference at .05 level)

TABLE 55

Table 55. -- Purpose of last trip by vehicle
in 1965

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Work	8	13	7	10
Make purchases	7	3	10	6
Sightseeing	4	2	3	1
Visit friends	4	1	2	2
Illness	1	0	2	2
Sell Produce	0	0	0	2
Other	1	1	3	0

During the 11 months preceding the investigation, about 3/4 of the total sample had travelled in a bus or truck. Of these 40% went in the trucks of acapadores to work in other departments and the balance travelled by bus to the local departmental capital or Guatemala City. Literates travelled more frequently than illiterates.

TABLE 56

Table 56. -- Frequency of travel in bus or
truck in 1965

	Experimental (La Ceibita)		Control Villages	
	Literates	Illiterate	Literate	Illiterate
More than 10 trips	4	1	7	4
5 - 10 trips	5	5	4	5
3 - 4 trips	7	5	9	7
1 - 2 trips	9	9	7	7
No trips	5	10	3	7

Differences Not Significant at .05 level.

More literates have been to Guatemala City in their lifetime and went principally to see the sights. Most of the La Ceibita illiterates who had been to the capital only passed through on their way to work

on the Pacific Coast. Most of the "control" illiterates either passed through the capital or went there to satisfy contractual agreements with the Tabacalera Nacional.⁴

TABLE 57

Table 57.-- Trips to Guatemala City

	Experimental Literate	(La Ceibita) Illiterate	Control Villages Literate	Illiterate
Within year	6	4	9	7
Year ago or more	3	2	7	7
Passed through	11	10	12	7
Never	10	14	2	9

Literate > Illiterate (Been to Guatemala City/not been) Significant Difference at .04 level.

Seasonal Migration

Migration to the Pacific Coast began prior to 1961 in the "control" villages but not until 1963 in La Ceibita. In all communities literates were the first to migrate and from 1961 through 1965 more literates than illiterates went to the Pacific Coast to work. All returned to their homes.

While literates started to migrate earlier, illiterates migrated more consistently. Among the "control" sample 13 literates but only 2 illiterates did not continue to migrate after their first trip. The recency of migration in La Ceibita does not provide similar comparisons for the "experimental" sample.⁵

⁴ Approximately $\frac{1}{4}$ of the "control" sample raised small quantities of tobacco under contract with the Tabacalera Nacional.

⁵ In January 1966, 16 illiterates and 11 literates left La Ceibita under contract for a month's work.

TABLE 58.
Table 58. -- Migration to Pacific Coast

	Experimental (La Ceibita)		Control Villages		TOTAL
	Literate	Illiterate	Literate	Illiterate	
Number migrated 1961 - 1965	15	14	22	15	66
Total number of trips in 1961 - 1965	25	18	42	33	118
Average number of trips	1.6	1.3	1.9	2.2	1.8
Number who did not migrate	15	16	8	15	54

CHART 1
Migration Pattern 1961 - 1965

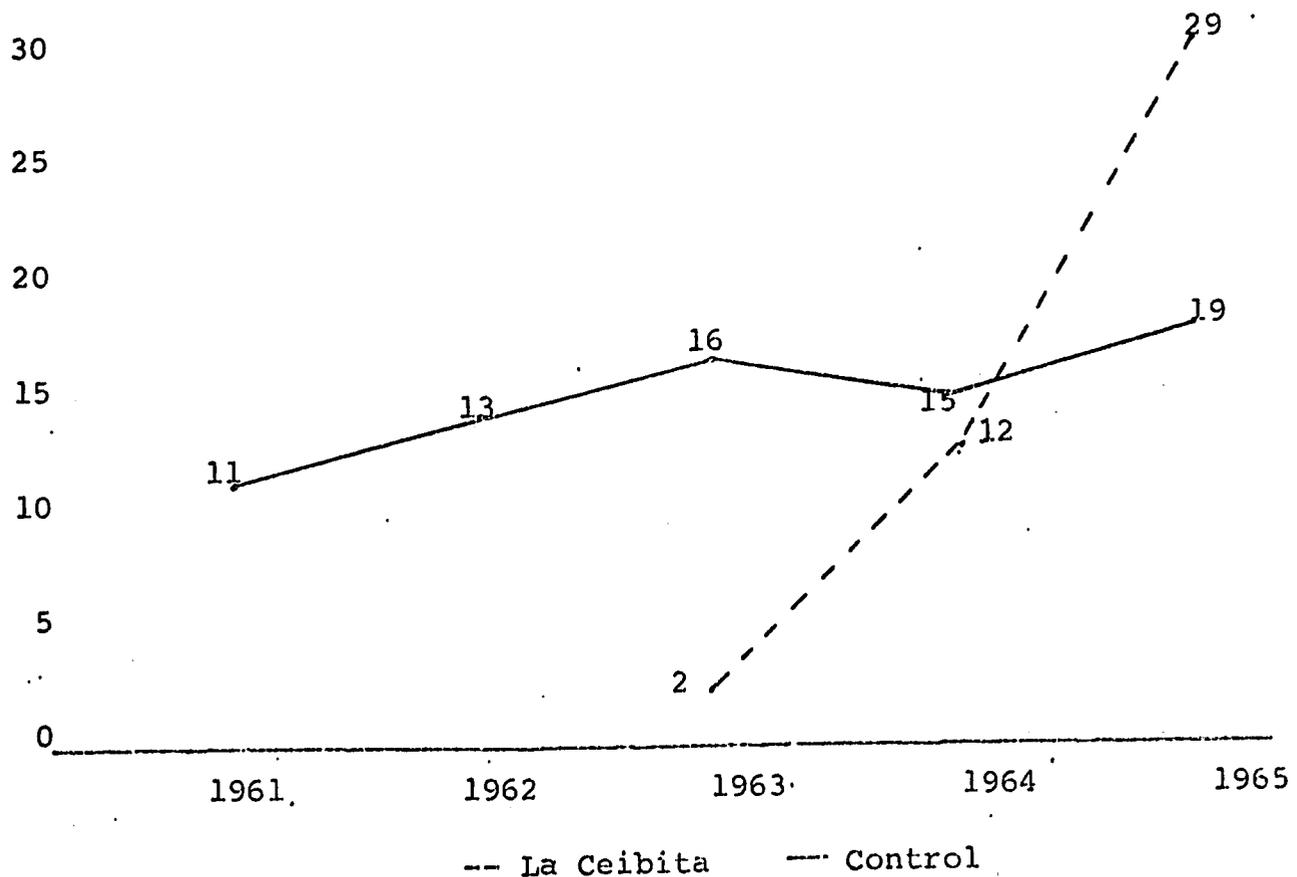


CHART 2

La Ceibita Literate/Illiterate
Migration (1963 - 1965)

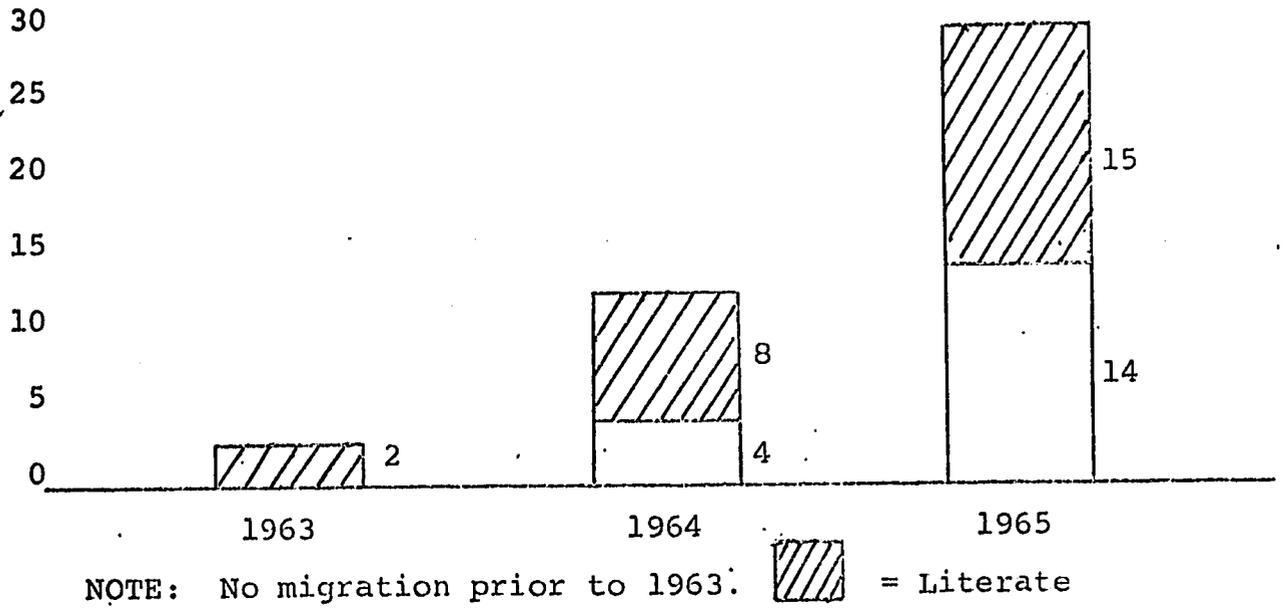
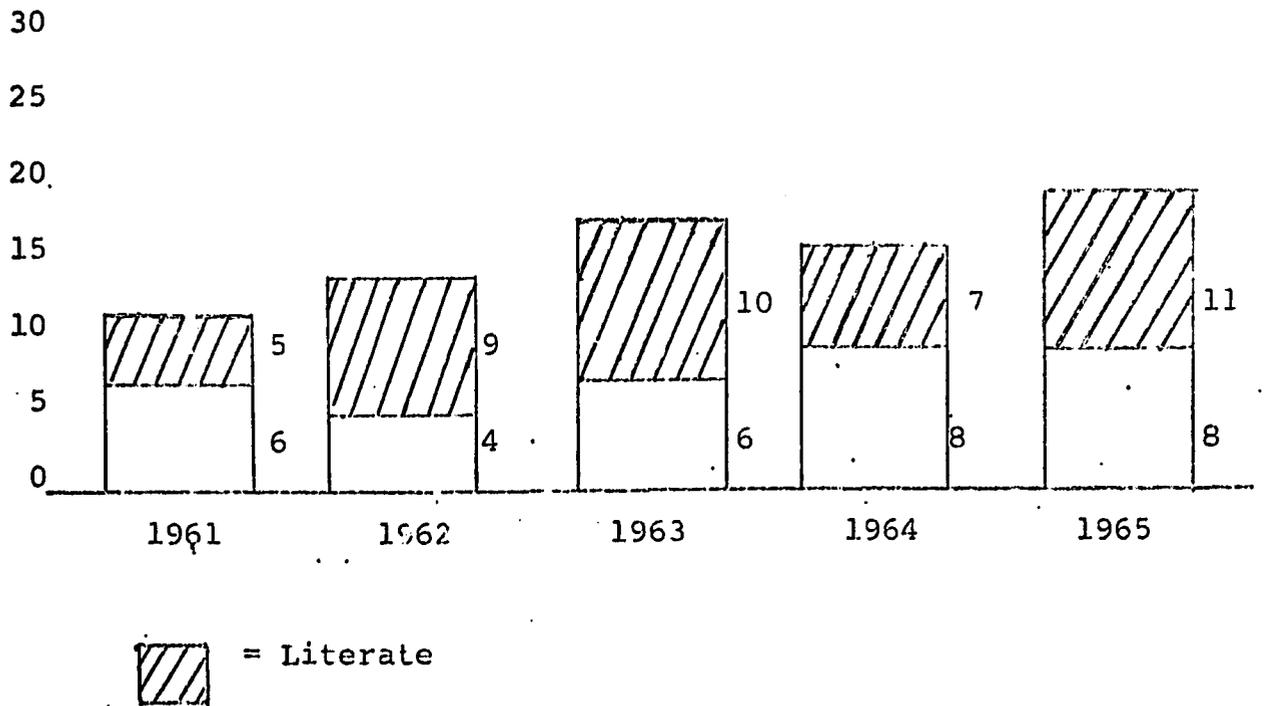


CHART 3

Control Village Literate/Illiterate
Migration (1961 - 1965)



Radio and Movies: Exposure and PreferenceRadio Listening

While the "transistor revolution" has trebled the number of radios in Jutiapa villages during the past 4 years, 82% of the subjects interviewed did not own a radio.⁶ However, only 4 subjects had never listened to a radio in their lives. Fifty-three listened daily, 26 within the preceding week, and 31 had heard a radio within the month. All but 3 of those who had listened reported being able to recall what they had heard.

While literates own only slightly more radios than illiterates, more literates report listening to the radio and with greater frequency than illiterates. Literates show a greater interest in radio and are more likely to know persons who own radios. Among 12 individuals who did not know someone who owned a radio, 9 were illiterate.

TABLE 59

Table 59. -- Radio Frequency
(More than weekly/weekly or less)

	Significance	Interpretation
Total: Literate/Illiterate	.01	Literate > Illiterate
Exp. Literate/Illiterate	.001	Literate > Illiterate
Control: Literate/Illiterate	Not Sig.	Literate > Illiterate
Literates: Exp./Control	Not Sig.	Exp. > Control
Total: Exp./Control ⁶	Not Sig.	Control > Exp.

⁶In 1962, 6 of the 120 households in El Jocote owned a battery powered radio and all owners were literate. Four of these were without batteries. In 1965, the investigators were told of 10 new transistor radios in the community.

TABLE 60

Radio Ownership

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Owns radio	6	5	7	4
Does not own radio	24	25	23	26
No Significant Differences				

TABLE 61

Table 61. -- Know Radio Owner

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Knows radio owner	30	26	27	25
Doesn't know radio owner	0	4	3	5
No Significant Differences				

Radio Preference

Radio listening preference was determined by answers to the interview question, "What do you like to listen to on the radio?" and responses to LIT questions (Card # 3) "What is important to hear on the radio?" Literates "like" news and information, while illiterates "like" music and entertainment.

While 75 subjects reported they "liked" to listen to news and information and 37 music and entertainment, 102 indicated on the LIT that news and information are the "most important" to listen to and only 14 that music and entertainment are "important". Again, more literates than illiterates indicated news and information as "important". All literates in La Ceibita rated news and information as "most" "important."

TABLE 62

Table 62. -- "What do you like to listen to" (Interview)
(News, information/music, entertainment)

	Significance	Interpretation
Total: Literate/Illiterate	.001	Literate > Illiterate
Exp. Literate/Illiterate	.01	Literate > Illiterate
Control: Literate/Illiterate	.06	Literate > Illiterate
Literates: Exp./Control	Not Sig.	Exp. > Control
Total: Exp./Control	Not Sig.	Control > Exp.

TABLE 63

Table 63. -- "What is important
to hear on the radio?" (LIT)

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
News, information	30	22	27	23
Music, entertain- ment	0	5	3	6
Don't know	0	3	0	1

Movie Viewing

More literates have seen a movie in their lifetime than illiterates. More persons saw a movie in Guatemala City than in any other location; more than a third of those who have visited the capital took in a movie during the trip. Fewest saw a movie in the local department capital where there is a theatre. Of the 54 who reported having seen a movie, 31 saw but one movie. Increasing attendance by illiterates in relation to literates is indicated by the reported frequency of attendance in 1965.

TABLE 64
Table 64. -- Seen a Movie in Lifetime

	Experimental (La Ceibita)		Control Villages	
	Literates	Illiterate	Literate	Illiterate
Has seen a movie	14	10	19	11
Has not seen a movie	16	20	11	19

Literate > Illiterate
Significant at .05 level

TABLE 65
Table 65. -- Remembers last Movie

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Remembers	7	3	11	5
Doesn't remember	7	7	8	6

No Significant Differences

TABLE 66
Table 66. -- Movie Frequency in 1965

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
More than once	5	5	7	5
Once	4	4	4	4
None	21	21	19	21

No Significant Differences

Attitudes Towards Economics

Peasant attitudes towards economics are conditioned by custom and the known security of corn and bean production. Working the land is a way of life; the standard by which men are judged and suitors for daughters accepted. Family life is work centered, not child centered.

Adult roles are assumed by male children as soon as they are old enough to accompany the men to the fields.

Questions that probed attitudes towards economics confirmed the campesino's attachment to the land and revealed his awareness of the problem of low productivity. Also revealed were his knowledge of the value of chemical fertilizers, little preference for non-agricultural work, and a willingness to use money to increase income.⁷

"What kind of work would you like to do?"

One hundred and two of the 120 subjects would elect to stay in agriculture. Three were unable to answer the question. Fifteen expressed preference for a non-agricultural job requiring a skill. Of these, 8 were among the literates of La Ceibita who had learned to read and write via the Juan Series. Their preference for non-agricultural work was significantly different, (.03 level) from that of illiterates in the same community and in the "control" communities. There were no significant differences between the "experimental" and the "control" literates or between literates and illiterates in the "control" villages.

TABLE 67

Table 67. -- "What kind of work would you like to do?"

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Agriculture	20	28	26	28
Semi-specialized	8	1	4	1
Professional	0	0	0	1
Don't know	2	1	0	0

⁷The data upon which this section is based came from responses by all subjects to 1) the "standard interview" question "What kind of work would you like to do?", 2) responses to the questions on card 6 of the IIT, "Is he satisfied with what he produces?", and "What can he do to increase the harvest?", 3) responses to questions on card 7 of the IIT, "What kind of a job will he find in the capital," and 4) responses to IIT card 4 question, "Suppose that someone has given this man a sum of money equal to what he earns in one year. What will he do with the money?"

"Is he satisfied with what he produces?"

The campesino's dissatisfaction with his corn and bean production is masked by his resigned acceptance of "God's will." The affirmative answer to the above question by 22 literates and 22 illiterates in La Ceibita where the LIT was first administered contradicted findings of previous studies in other communities. When the LIT was subsequently administered in the "control" villages, the added question "Why?" followed their answer to the first question. In the "control" villages 22 of the literates and 21 of the illiterates who answered the question affirmatively explained that it was "God's will" or "What God gave them and that one must be satisfied with what God gives." When the investigators returned to La Ceibita at a later date, the subjects available for further questioning stated that they were satisfied with what ever they harvested because it is the will of God. However, when asked what are the greatest needs of the campesino, increased productivity of the land was the almost unanimous answer.

"What can he do to better the harvest?"

Knowledge of the value of fertilizer has increased rapidly since 1962 when the investigators found few campesinos who knew what chemical fertilizer was. In 1965, 104 of the 120 subjects said that production could be increased with fertilizer. Although both literates and illiterates have learned about the value of fertilizer, more literates in both the "experimental" and the "control" villages mentioned fertilizer than illiterates.

TABLE 68

Table 68. --"What can he do to better the harvest?"

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
New Methods: fertilizer, new seed	29	23	29	23
Work harder, ask God	1	6	1	6
Don't know	0	1	0	1

"What will he do with the money?"

The answers are almost evenly divided between satisfaction of immediate needs and the use of money to increase income. Few expressed wants of a higher society or would waste money. Three would help those less fortunate than themselves.

The answers of the La Ceibita literates were almost identical with those of the literates and illiterates in the "control" villages. Different from the other 3 groups were the La Ceibita illiterates, two-thirds of whom would spend the money to gratify immediate needs for food and clothing.

TABLE 69

Table 69. -- "What would he do with the money?"⁸

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Gratify needs (food, clothing)	11	20	14	11
Increase income (fertilizer, buy and sell corn and beans)	14	8	13	14
Radio-car	1	0	1	1
Pleasure (women, liquor)	0	0	1	4
Help others	1	1	1	0
Can't say	2	1	0	0
Unintelligible (Tape)	1	0	0	0

"What kind of a job will he find in the capital?"

The answers of the La Ceibita literate sample to this question were different from those of illiterates in the same community and from both literates and illiterates in the "control" villages. All of

⁸ Answers to the question fell into the following 6 categories; .
 1) gratify immediate needs (food, clothing, household needs, "spend it")
 2) invest it/use it to increase business (buy fertilizer, land, livestock, buy and sell corn and beans) 3) wants of a higher culture (radio, car) 4) pleasure (liquor, women) 5) help others, 6) unable to say.

the La Ceibita literates saw job opportunities in the capital and 18 indicated jobs that required literacy. On the other hand, a third of the illiterates in La Ceibita were unable to answer the question and 17 mentioned unskilled jobs: garbage collector, helper on a bus, gardner, laborer. Among the literate and illiterate "control" sample, 16 of each group named unskilled jobs and 8 of each named jobs requiring literacy; bus driver, policemen, secretary, clerk in a store, artisan.

TABLE 70

Table 70. -- "What kind of a job will he find in the Capital?"

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Don't know/no answer	0	10	2	3
Farm work	5	4	0	1
Unskilled	7	13	16	15
Semi-skilled	16	3	7	7
Skilled	2	0	1	1
Jobs, but not for <u>campesino</u>	0	0	1	0
Answer refers to bus driver in picture	0	0	3	3

"What should a laborer receive?"

In answer to the question, "What should a laborer receive," only the La Ceibita literates expressed satisfaction with their present wages.

TABLE 71

Table 71. -- Averaged responses to question, "What should a laborer receive?"

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
	80¢	90¢	93¢	82¢

Attitudes towards Education

The campesino sees education as a good thing, but he is ambivalent out the usefulness of education in improving his life conditions. Literates, although better informed about the potential jobs available to the literate, are more realistic about the campesino's dependence upon the land. The illiterate, vague about the benefits of education, sees it as more important than working the land.

Following the unstructured response to the LIT picture of a boy going to work and another with a book under his arm, 2 questions were asked: "Which of the 2 does the most useful job?" and "How is reading and writing going to help him in his life within 5 or 10 years?"

TABLE 72

Table 72. -- "Which of the 2 does the most useful job?"

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Boy going to school ⁹	9	12	11	17
Boy going to work	11	10	13	11
Both equally useful	10	8	6	2

TABLE 73

Table 73. -- "How is learning to read and write going to help him?"

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Mention specific jobs or opportunities	14	4	15	15
Betterment, not elaborated	8	10	4	5
Education for its own sake	7	11	8	7
Sees values for others none for self or <u>campesino</u>	0	1	2	1
Don't know/no answer	1	4	1	2

⁹Of the 49 who stated that the boy going to school did the most useful work some are presumed to have answered in accordance with the perceived interest of the teachers who conducted the interviews. The fact that the person who attends school is sustained by the man who works the soil is more often voiced by the articulate literate than by the illiterate.

Those who thought that the boy going to school did the most useful job were also the most specific about the opportunities afforded by education. Answers in the category "Education for its own sake," (importance of being literate, the status conferred, etc.) were given principally by those who thought that the boy going to work did the most useful job.

TABLE 74

Table 74. -- Usefulness of work/school vs. value of reading and writing

	School most useful	Work most useful	Both useful
Mention specific job or opportunities	26	10	12
Betterment, not elaborated	8	11	8
Education for its own sake	13	16	4
Sees value for others, none for <u>campesino</u>	0	3	1
Don't know/no answer	2	5	1

Use of Printed Media

The scarcity of printed materials available to neo-literates among largely illiterate societies is recognized as a principal factor in the limited meaning of literacy in peasant society and the attrition of literacy skills. There are few newspapers, magazines or books available to the population studied. Only 10 of the 60 literates interviewed in the 4 communities reported owning a book other than a school book. Most of these were Bibles or religious tracts. The Books of Juan have provided the principal reading material in all villages for literates who did not attend the literacy class. The adult literacy class, perhaps because of its recency, appears to have provided slightly more stimulus for reading as well as more reading material than the public school.

The evidence indicates that individuals who have achieved literacy in the adult literacy class make but slightly less use of their literacy

skills than those who attended 2 years of public school. Moreover, the La Ceibita literates indicate by their expressed preference for reading materials greater understanding of the usefulness of literacy in their lives.

Newspapers and Magazines

Less than a third of the literates reported reading a magazine during the past year and less than half had seen a newspaper. Most of the individuals who had read either a newspaper or magazine within the year were able to recall either the name of the publication or a story they had read. More literates in the "control" villages than in La Ceibita reported having read a magazine or newspaper.

TABLE 75

Table 75. -- Newspaper Readership
Among Literates

	Experimental (La Ceibita)	Control Villages
Read a newspaper within past year	9	15
Read, but not within past year	6	5
Never read a newspaper	15	10

Differences Not Sig. at .05 level

TABLE 76

Table 76. -- Magazine Readership
Among Literates

	Experimental (La Ceibita)	Control Villages
Read a magazine within past year	9	11
Read magazine but not within past year	0	4
Never read a magazine	21	15

Differences Not Sig. at .05 level

Books

Twenty-one literates in La Ceibita compared with 18 in the "control" villages reported having read a book during the preceding year. Of the

21 books read by literates in La Ceibita during the preceding year, 3 reported reading religious books, 3 school books they had borrowed, 5 read booklets from the Pan American Series (auxiliary readers supplied graduates of the literacy classes), and 10 reported reading the Juan Books, most for a second time. Sixteen of the 21 owned from 6 to 32 pamphlets of the Pan American Series.

Of the 18 books read by literates in the "control" villages, 2 were religious instruction, 1 a novel, 3 were first and second year school books, and 12 were the Books of Juan, used for adult literacy instruction, which had found their way into the 3 communities.

TABLE 77

Table 77. -- Book Readership
Among Literates

	Experimental (La Ceibita)	Control Villages
Read a book within year	21	18
Read a book, but not within a year	9	9
Unable to recall reading a book	0	3

Differences Not Sig. at .05 level

Letters

About half of the literates in all communities have never written nor received a letter. Literates in La Ceibita reported writing more letters during the past year and receiving fewer letters than literates in the "control" villages.

TABLE 78

Table 78. -- Letters Written and Received
Among Literates

	Experimental (La Ceibita)	Control Villages
Letters written in 1965	14	12
Never wrote a letter	15	13
Letter received in 1965	10	14
Never received a letter	20	13

Differences Not Sig. at .05 level

Reading Preference

Those who attended the adult literacy class in La Ceibita expressed greater interest than "control" literates in owning books which might help them improve their lives. To the question, "If you could buy books, what kind would you buy?", 17 from La Ceibita and 10 from the "control" villages expressed a wish for books on medicine, agriculture, mechanics, religion and history. More literates from the "control" villages would buy school books, indicating those they had already read, and books for entertainment.

TABLE 79

Table 79. -- "If you could buy books,
what kind would you buy?"
Among Literates

	Experimental (La Ceibita)	Control Villages
Agriculture, medicine, mechanics	13	9
Religion, history	4	1
School books	11	16
"Any kind"	2	0
Entertainment	0	2
Don't know	0	2

Differences Not Sig. at .05 level

Type of Education as a factor in various practices and attitudes

The effect A.I.D. sponsored Books of Juan may have had on attitudes and practices is obscured by the fact that one half of the literates in the "control" villages as well as all literates in the "experimental" village used the sponsored materials in achieving literacy. To determine the effect of the adult literacy materials comparison was made of literates in all villages who 1) attended literacy classes only, 2) attended public school only, and 3) attended both literacy classes and public school. Subjects with literacy scores below 9 were eliminated. The remaining 51 subjects had an average literacy score of 11.27 and average age of 23 years. Comparisons were made on selected items.

Whether an individual achieved literacy in public school, an adult

literacy class or a combination of the 2 makes no significant difference in his use of literacy skills, work aspirations, frequency of travel, use of Incaparina, use of toothbrush or in the following items of the ladder rating scale: influence over others, ability to influence the future, self in relation to community, and willingness to undertake progressive agricultural practices.

The relationship of psychological factors to attitudes and practices

The peasants in Latin America are frequently described as a homogeneous population, all functioning at about the same level, downtrodden, withdrawn, illiterate, uninformed about the outside world, and uniformly bound to the cycle of life and death presumed to predominate in the subsistence economy. From this framework, the richness of individual experience and indeed the wide range of individual differences found in the peasant community have received relatively little attention. Through the development and use of the Literacy Interest Test this study has attempted to evaluate individual differences and relate them to the range of functioning observed and measured in the daily life of the subjects.

While standardizations have been made of some intelligence tests and personality schedules have been utilized with a variety of Latin American groups, no instruments are available that are directly appropriate for the population under study. The Literacy Interest Test developed here and described earlier in the procedure section was developed to meet the need for the exploration of individual differences among these subjects. Four psychological variables; psychological functioning, empathy, achievement motivation and frustration were considered for this investigation. Many other factors could have been selected but these scales seemed most relevant to the investigators.

In an attempt to control cultural bias, American and Guatemalan judges rated protocols on selected psychological factors. The pooled American and pooled Guatemalan scaled scores and their relationship are shown in Table 80.

TABLE 80

Table 80. -- Correlations between Pooled American Vs. Pooled Guatemalan Scales

Scales:

I.	Psychological Functioning	+ .679
II.	Empathy	+ .706
III.	Achievement Motivation	+ .721
IV.	Frustration	+ .326

As shown in Table 80 a high level of agreement was found on Scales I, II and III. The relationship of Scale IV, while significantly different from chance, is low and all interpretations from this variable must be made with appropriate caution.

With the high inter-judge correlation it was decided to pool all scores to get the most representative score for each subject. In doing this the modal score for each subject on each scale utilizing all 5 judges was selected as most representative of his functioning. Utilizing these modal scores from all judges, inter-correlations were run on the 4 scales. These inter-correlations are shown in Table 81.

TABLE 81

Table 81. -- Inter-correlations - Modal Scores - All Judges

Scales:	I.	II.	III.	IV.	Pooled I, II, III
I.	1	+ .719	+ .768	+ .560	+ .878
II.			+ .556	+ .389	+ .789
III.				+ .607	+ .797
IV.					+ .501

From the integration of Tables 80 and 81 it is suggested that Scales I, II and III measure a common factor. Scale IV has a relatively lower and less reliable correlation with the other factors and suggests that a relatively distinct factor is being measured. Therefore the pooled scale utilizing Scales I, II and III was created and named Psychological Functioning. This pooled scale was utilized as a single variable, in

addition to the frustration scale. The relationships of pooled scores to individual scales are also shown in Table 81. Based on the preceding analysis we felt at this point that we had 2 measurements, psychological functioning and frustration, that could be usefully related to other facets of the individual for exploration of differences. The distribution of these variables is shown by village in Tables 82 and 83 for psychological functioning and Tables 84 and 85 for frustration.

TABLE 82

Table 82. -- Psychological Functioning
Distribution of Modal Scores

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Rated High	14	3	22	8
Rated Middle	7	5	5	15
Rated Low	9	22	3	7

TABLE 83.

Table 83. -- Comparisons of Psychological
Functioning (Chi Square)

	Significance	Interpretation
Experimental	.01	Literate > Illiterate
Control	.01	Literate > Illiterate
Literate	.08	Control > Experimental
Illiterate	.001	Control > Experimental
Total Sample	.001	All Literate > Illiterate
Total Sample	.001	All Control > Experimental

Psychological functioning is clearly rated to literacy by village, with the expected greatest disparity seen in the "experimental" illiterates. While the literacy program in the "experimental" village has made nearly all of the bright people literate (and some not bright), many bright illiterates are found in the "control" villages where there

have been no formal literacy classes. The "experimental" illiterate sample was drawn from a smaller population and one with a lower level of psychological functioning than the "control" illiterate sample.

TABLE 84

Table 84. -- Distribution of Modal Score

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Rated High	5	5	13	7
Rated Middle	15	10	14	15
Rated Low	10	15	3	8

TABLE 85

Table 85. -- Comparisons of High Frustration (Chi Square)

	Significance	Interpretation
Experimental	Not Sig.	Literate > Illiterate
Control	.05	Literate > Illiterate
Literate	.05	Control > Experimental
Illiterate	.05	Control > Experimental
Total Sample	Not Sig.	All Literate > Illiterate
Total Sample	.02	All Control > Experimental

Verbal Fluency in Responses to Literacy Interest Test

The preliminary analysis of word frequency counts based upon the Spanish transcription of the LIT reveals some expected differences as well as some that require further study. As expected, the interviewers used slightly more words to elicit responses from the illiterate group. Literates as a group were much more productive in terms of verbal response. Table 86 shows the pattern of word production by group and the average number of words used by interviewers in eliciting responses.

TABLE 86

Table 86. -- Comparison of verbal fluency by group.
(Average No. words for group)

	Experimental (La Ceibita)		Control Villages	
	Literate	Illiterate	Literate	Illiterate
Questions	555.8	594.9	559.9	570.3
Answers	538.3	430.7	1061.6	776.5

The finding that both the "control" literates and illiterates were more productive than the "experimental" literates in La Ceibita requires further study. Since verbal fluency appears to be related to general psychological functioning, the most parsimonious explanation for the "control" literates' high fluency may be that they also tend to be a brighter group. The "control" illiterate sample contains several highly intelligent, highly verbal subjects who contribute heavily to the differences found. The sampling procedures may have operated to select more verbal subjects in the "control" villages. Although accessibility to interaction with other groups appears similar for both "experimental" and "control" villages, differences may exist that contribute to different customs or opportunities for verbal expression.

Inter-correlations

The general level of correlations found within the sample permits statements concerning general tendencies and relationships between selected variables and the variables of psychological functioning, frustration, literacy scores, functional literacy and net worth.¹⁰

¹⁰Some of the significant relationships found in the inter-correlation tables may represent expected chance findings. However, the number of significant correlations far exceeds that expected by chance. Cross-validation studies in the future would provide further refinement.

TABLE 87

Table 87. -- Correlation between High Psychological Functioning and Selected Items

Items/Direction	Correlation	Level of Significance
Cause of illness/sophisticated	+ .337	.001
Travel/high travel	+ .341	.001
Radio use/high usage	+ .364	.001
Movies/high attendance	+ .332	.001
Teeth/high care	+ .368	.001
Mother's literacy/high literacy	+ .088	N.S.
Father's literacy/high literacy	+ .045	N.S.
Radio preference/sophisticated	+ .255	.01
Use of money/high investment	+ .222	.05
Job in city/high level	+ .213	.05
Value of education/high value	+ .343	.001
Migration/high migration	+ .142	N.S.
Net Worth/high value	+ .210	.05
Agricultural practices/high	+ .219	.05
Frustration/low frustration	- .501	.001
Literacy score/high literacy	+ .393	.001
Functional literacy/high literacy	+ .455	.001
Ladder 2/secure	- .024	N.S.
Ladder 7/community self	+ .208	.05

Psychological Functioning: A person scoring high on psychological functioning is:

1. More likely to be able to give a meaningful answer regarding causes of illness.
2. Has travelled more frequently.
3. Uses and listens to radios more frequently.
4. Has attended movies more frequently.
5. Prefers radio programs on self improvement.
6. Sees education as related to specific job opportunities.
7. Reveals more frustration.
8. Is more likely to be literate.
9. More likely to use his literacy skills.
10. Practices better dental care.
11. Has ideas about how to use additional monies for increasing his income.
12. Has specific ideas about obtaining employment.
13. Has a somewhat higher net worth.
14. Engages in improved agricultural practices.
15. Places the community needs above his own self needs (self-actualizing).

For this group the relationships to mother's literacy, father's literacy, migration pattern, or general feelings of security as reflected in the ladder rating scales are not significant at the .05 level but in all instances they fell in the predictable + direction.

TABLE 88

Table 88. -- Correlation between Low Frustration and Selected Items

Items/Direction	Correlation	Level of Significance
Cause of illness/sophisticated	-.198	.05
Travel/high travel	-.167	N.S.
Radio use/high usage	-.164	N.S.
Movies/high attendance	-.214	.05
Teeth/high care	-.232	.05
Mother's literacy/high literacy	-.100	N.S.
Father's literacy/high literacy	-.016	N.S.
Radio preference/sophisticated	-.132	N.S.
Use of money/high investment	-.236	.01
Job in city/high level	-.037	N.S.
Value of education/high value	-.393	.001
Migration/high migration	-.073	N.S.
Net Worth/high value	+.072	N.S.
Agricultural Practices/high	-.08	N.S.
Psychological functioning/high	-.501	.001
Literacy score/high literacy	-.178	N.S.
Functional literacy/high literacy	-.170	N.S.
Ladder 2/secure	+.134	N.S.
Ladder 7/community over self	-.163	N.S.

Frustration: High frustration is significantly related to:

1. To the effective use of money.
2. To relating education to specific job opportunities.
3. To higher psychological functioning.
4. Knowledge of the causes of illness.
5. To movie attendance.
6. Better dental care.

Frustration does not show at .05 significant degree of relationships to other variables such as (*) travel, (*) radio usage, mother's

and father's literacy, radio preferences, jobs in city, migration, net worth, agricultural practices, (*) literacy scores, (*) feelings of security or (*) placing of self in relation to community.

(NOTE: (*) Items significant at .06 level. No .05 significant correlations were obtained between literacy and frustration.)

TABLE 89
Correlation between High Literacy Score
and Selected Items

Items/Direction	Correlation	Level of Significance
Causes of illness/sophisticated	+.196	.05
Travel/high travel	+.199	.05
Radio use/high usage	+.245	.01
Movies/high attendance	+.166	N.S.
Teeth/high care	+.276	.01
Mother's literacy/high literacy	+.216	.05
Father's literacy/high literacy	+.234	.05
Radio preference/sophisticated	+.305	.001
Use of money/high investment	+.013	N.S.
Job in City/high level	+.272	.01
Value of education/high value	+.194	.05
Migration/high migration	+.061	N.S.
Net worth/high value	+.169	N.S.
Agricultural practices/high	+.246	.05
Psychological functioning/high	+.393	.001
Frustration/low frustration	-.178	N.S.
Functional Literacy/high literacy	+.845	.001
Ladder 2/secure	+.044	N.S.
Ladder 7/community over self	+.253	.01

Literacy Scores: Literates are more likely than illiterates to:

1. Give meaningful answers of illness.
2. Have travelled.
3. Listen to radio.

4. Practice better dental care.
5. Have literate parents.
6. Prefer radio programs on self-improvement..
7. Have specific ideas about jobs in city,
8. See education as valuable in relation to jobs.
9. Practice improved agricultural methods.
10. Be brighter than average.
11. Apply their literacy.
12. Be oriented toward community.

Functional Literacy: (A scale reflecting literacy skills)

A similar pattern is found on functional literacy except in mother's literacy, the use of money, migration, net worth, frustration, security and community/self orientation.

TABLE 90

Table 90. -- Correlations between High Functional Literacy and Selected Items

Items/Direction	Correlation	Level of Significance
Cause of illness/sophisticated	+ .250	.01
Travel/high travel	+ .294	.001
Radio use/high usage	+ .225	.05
Movies/high attendance	+ .282	.01
Teeth/high care	+ .250	.01
Mother's literacy/high literacy	+ .116	N.S.
Father's literacy/high literacy	+ .240	.01
Radio Preference/sophisticated	+ .270	.01
Use of money/high investment	.000	N.S.
Job in City/high level	+ .260	.01
Value of education/high value	+ .218	.05
Migration/high migration	+ .139	N.S.
Net worth/high value	+ .175	N.S.
Agricultural Practices/high	+ .242	.01
Psychological functioning/high	+ .455	.001
Frustration/low frustration	- .170	N.S.
Literacy score/high literacy	+ .845	.001
Ladder 2/secure	+ .005	N.S.
Ladder 7/community over self	+ .124	N.S.

TABLE 91
 Correlation between High Net Worth
 and Selected Items

Items/Direction	Correlation	Level of Significance
Cause of illness/sophisticated	+.137	N.S.
Travel/high travel	+.163	N.S.
Radio use/high usage	+.335	.001
Movies/high attendance	-.035	N.S.
Teeth/high care	+.171	N.S.
Mother's literacy/high literacy	+.219	.05
Father's literacy/high literacy	+.104	N.S.
Radio preference/sophisticated	+.227	.05
Use of money/high investment	-.111	N.S.
Job in City/high level	-.032	N.S.
Value of education/high value	+.065	N.S.
Migration/high migration	-.216	.05
Agricultural Practices/high	+.369	.001
Psychological functioning/high	+.210	.05
Frustration/low frustration	+.072	N.S.
Literacy Score/high literacy	+.169	N.S.
Ladder 2/secure	-.079	N.S.
Ladder 7/community over self	-.088	N.S.

Net Worth: High net worth is significantly related to:

1. Having and listening to radio.
2. Practice of improved agricultural methods.
3. Mother's literacy.
4. Radio preference, for self improvement.
5. Low migration.
6. Psychological functioning.

Relative Effect of the Two Major Variables

A significant portion of some correlations are the result of a third variable. In the preceding correlations the two major variables are literacy score and psychological functioning. The relative effect of these two variables on 3 critical areas of behavior (frustration, sense of community and knowledge of illness) was analyzed by partial correlations. Table 92 presents the results of this analysis.

TABLE 92

Table 92. -- Partial correlations of selected variables

<u>Variable # 1</u>	<u>Variable # 2</u>	<u>r₁₂</u>	<u>Variable # 3</u>	<u>r_{12.3}</u>
Cause of illness	Literacy Score	.196	Psychol. Funct.	.074
Cause of illness	Psychol. Funct.	.337	Literacy Score	.288
Community/self	Literacy Score	.253	Psychol. Funct.	.19
Community/self	Psychol. Funct.	.208	Literacy Score	.122
Psychol. funct.	Literacy Score	.393	Net Worth	.406
Psychol. funct.	Literacy Score	.393	Frustration	.362
Frustration	Literacy Score	.178	Psychol. Funct.	-.025
Frustration	Psychol. Funct.	.501	Literacy Score	.475

NOTE: .188 = .05 Level of Significance

In each instance where literacy was correlated with a second variable the greatest change was produced when psychological functioning was partialled out. A .253 correlation was found between literacy score and "community over self" (Ladder Rating item # 7). With psychological functioning partialled out, the correlation was reduced to .19, still significant at the .05 level. We conclude that although psychological functioning does account for some of the initial correlation found, a significant correlation remains between literacy score and the degree to which the individual places the community over self.

A significant correlation of .196 was found between literacy score and knowledge of the cause of illness. When the influence of psychological functioning was partialled out the correlation was reduced to .074 which

is not significant at the .10 level. Thus psychological functioning, not literacy, causes most of the correlation that exist between knowledge of the cause of illness and literacy score.

The removal of the influence of psychological functioning from the correlation existing between literacy score and frustration reduces the value from .178 (significant at .06 level) to a partial correlation of $-.025$. Consequently, there is no evidence of a relationship or causation between literacy and frustration.

When literacy score is removed from the correlation of .501 between psychological functioning and frustration, a slight reduction to .475 (significant at .001 level) takes place. Again it becomes apparent that there is a very high relationship between psychological functioning and frustration and virtually no relationship between literacy and frustration.

APPENDIX E

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LITERACY TESTDescription of Test

The test consists of 7 "sets" of 2 sentences, the second sentence in each "set" designed to test comprehension of the first sentence. Sets 1 and 2 use the vocabulary from Juan Book II; sets 3 and 4 employ vocabulary from Juan IV; sets 5 and 6 employ vocabulary from Juan VI. The first set at each vocabulary level is easier than the second set. The seventh set is a short paragraph from "Cuidado con las Moscas," one of the Pan American Series.

The first sentence of each set is complete. The second sentence lacks one word. Three extra words are provided, one of which the subject must underline to complete the second sentence so that it will repeat the information in the first sentence of the set.

The reading and comprehension test progresses through 7 levels of difficulty, but requires no writing or spelling of words, only enough skill to underline words for correct sentence completion.

To reduce test contamination, 2 equivalent reading and comprehension tests, "A" and "B", were administered alternately in the field.

A third sheet, blank except for lines on which to write, is the final part of the literacy test. The subject was asked to write from dictation a sentence that was chosen from the last level he had read but from the alternate test; i.e., dictation from test "B" if he had just completed test "A". If the subject declared that he could not write, he was encouraged to write dictated letters and numbers and to sign his name, to assure the tester that he was indeed illiterate.

Test "A" and "B" were administered alternately and apart from other individuals. A period of time for general conversation to make the subject comfortable was allotted. If the subject claimed he had forgotten or was sure he could not do the test, he was encouraged to read a few easy sentences from the Juan series to give him confidence or prove his point to the interviewer. Next, a sample test with 3 sentences comparable to the simplest in the test was shown to the

subject to explain the testing method and to give him a successful experience working with the material. The first explanation given was the same way each time. If it seemed that the explanation was not clearly understood, another explanation was given. The writing test was dictated.

It was expected that the test would use silent reading wholly, but the tendency was for the lower ranges of literates to read the test orally or at least at a whisper that could be understood. The better literates read silently or began at a whisper and, as confidence grew, lapsed into silent reading. The interviewer found it less disturbing to allow the subject his own choice and apparently to pay no attention to the process except to offer an encouraging word and expression (tone of voice) between sets.

The testing was terminated when it was apparent that the subject had reached his topmost level. A lengthening of the subject's time factor was often but not always the initial indicator; more often reading and re-reading of the sets was followed by a look of discomfort and helplessness and a wavering attempt to decide on a choice in the final line. Often when the subject was reading so that his words were distinguishable, there could be no doubt of his limits. Since a correct answer could have been achieved without comprehension by a simple one out of 3 chances, the investigator tried to terminate justly so as not to allow this fault to enter the testing.

Global literacy score

The comprehension score is the number of correct answers achieved and does not reflect the number of sets attempted. The possible score range is 0-7. However, no person who scored 5 attempted the seventh set which was designed to test mobility beyond the controlled vocabulary of sets 1-6, and no one who scored 2 attempted sets beyond the fourth. The design of the test held up well in the field:

The writing samples were examined by 2 judges and scored to the following criteria:

1. Subject cannot write at all.
2. Illegible: handwriting attempted but either only letters are

formed or an attempt at words cannot be understood.

3. Barely adequate: beginning to communicate in whole sentences. Sometimes whole words are in themselves illegible but the context makes it possible for a reader of Spanish to understand. Sometimes spaces between words are not properly observed. Misspellings are present but "readable" (example, biene, for bien, tene for tiene, baya for bella.)
4. Adequate: easily read although capital letters may be missing. Certain letters may be reversed whose sounds are indistinguishable in Spanish (ll and y). Words may be written in unlinked syllables. Misspellings occur that do not obscure the meaning of the word. Punctuation may be missing. Writing itself is clear although it may be clumsy and show lack of practice.
5. Good: Well formed and size is not erratic. There is no possibility of misunderstanding. An occasional misspelling accepted especially in less familiar words where the sound substituted is logical. (example, migrovios for microbios).

Totaling of comprehension and writing scores gives more weight to the comprehension skill (whose possible high score is 7) than to the writing skill (whose possible high score is 5).

For an adult in a highly illiterate culture the reading-comprehension skill is of greater utility value than the writing skill. Observation in the field supported by volunteer and student interviews showed that not so much stress as the teacher guides advised was put on practice of the writing skill.

A chart of the combined scoring indicates that the skills as rated follow a consistent pattern in accordance with these judgments.

To obtain a small number of useful and meaningful final categories from all the possible variations of the combined scores, a chart was constructed entering them all from 7-5 (a combination of comprehension and writing scores in that order) to 0-1. The number of subjects who achieved each possible score was placed in the same column, including all possible ways of achieving a given total score (example: score 9 can be achieved by scores 6-3, 5-4, 4-5). The pattern that emerged

was then divided into 5 categories to correspond to

Category 1	Total scores 11 and 12 ...functional literate
Category 2	Total scores 9 and 10 ...adequate literate
Category 3	Total scores 7 and 8 ...low literate
Category 4	Total scores 3,4,5,6 ...threshold literate
Category 5	Total scores 1 and 2 ...illiterate

Explanation of Categories:

- Category 1. Functional literate - achieved no less than the mastery of the Juan series Book VI level and no less than an "adequate" writing score 4. He is assumed to be able to function within the limits of his education and have enough understanding of the structure of the language to continue to learn on his own.
- Category 2. Adequate - (Scores 7-3, 6-4, 5-5, 4-5) a comprehension range on the level of Juan Books V and VI and no less than "adequate" writing. Scores 6-3 and 4-5 show a slight imbalance but each has one high performance that cannot be discounted.
- Category 3. Low adequate - takes in a median range of achievement with considerable variability.
- Category 4. Threshold shows that some learning has taken place, or is taking place. Not completely illiterate.
- Category 5. Illiterate - (Scores 1-1, 0-2, 0-1) No learning at all or not enough to be useable.

LITERACY TEST "A"

EXAMEN DE ALFABETIZACION

Entrevista # _____

Localidad _____

Nombre _____

Soltero () Casado ()

Edad _____ Sexo _____

Años en la Escuela Pública _____

Grado escolar completado _____

¿Asistió antes a la clase de alfabetización?

Libro de Juan completado _____

Punteo de alfabetización

Lectura _____

Escritura _____

Punteo _____

Nombre del esposo o esposa _____

Nombres y edades de los hermanos (solamente los varones)

NombresEdades

¿Ha trabajado en otras Comunidades (o lugares) este año? sí () no ()

Dónde? _____

Cuándo? _____

¿Qué clase de trabajo hizo Ud.?

Peón () Tierra alquilada ()

Caporal () Otro () _____

1. El pato tiene patas.

El pato tiene

saco patas pozo

2. El saco de Juan es de lana.

Juan tiene un saco de

madera lazo lana

3. Juan tiene un coco en su mano.

En su mano, Juan tiene un

pato coco casa

1. El adobe de las paredes es de barro.
El adobe se hace de
madera barro teja

2. La casa tiene puertas de madera.
En la casa son de madera
los libros las puertas las paredes

3. Para lavar la ropa, Elena usa agua de pozo.
El agua que usa Elena para lavar es de
pozo vaso lago

4. Las manos se lavan bien con agua y jabón.
Hay que lavarse las manos con agua y
sal jabón cebolla

5. Guatemala es una ciudad linda y hermosa.
Guatemala es una linda
rosa mujer ciudad
6. La vida del campo es más tranquila que en la
ciudad.
Más tranquila que en la ciudad es la vida en
el pueblo el campo la capital
7. Debe tenerse cuidado con las moscas. Recogen
con sus patas, microbios de enfermedades gra-
ves, como la tifoidea. Se paran en nuestras
comidas y dejan allí los microbios que nos en-
ferman.
Las moscas conducen microbios de la
viruela gripe tifoidea

1

2

3

1

2

3

1

2

3

1

2

3

1

2

3

1

2

3

ALTERNATE LITERACY TEST "B"

1. Mi casa tiene paredes de adobe.
Las paredes de mi casa son de
madera adobe ladrillo

2. Los muebles de la sala son de madera.
De madera son los
techos pisos muebles

3. Julio bebe agua en un vaso.
Julio bebe el agua en
taza vaso plato

4. Antes y después de comer,
hay que lavarse las manos.
Antes de comer lavarse
los dientes las manos la ropa

5. Mi patria es bella, se llama Guatemala.
Mi patria se llama
Elena Rosa Guatemala
6. En el campo se respira aire puro que da salud.
El aire puro del campo da
alegría salud dinero
7. Las moscas son peligrosas, se paran en lugares
sucios. Con sus patas recogen microbios que
muchas veces producen enfermedades. Des-
pués se paran en nuestros alimentos y dejan
en ellos esos microbios. Graves enfermedades
son causadas por éstos.
Los microbios que conduce la mosca pueden
causar
asco salud enfermedad

STANDARD INTERVIEW

Fecha: _____

Entrevista " _____

Comunidad _____

Entrevistador _____

Nombre de la persona entrevistada _____

Nivel de Instrucción _____

1. (1) Zapatos (2) Calcetines (3) Sandalias o caltes (4) Descalzo

2. Edad: _____

3. Lugar de nacimiento: Pueblo _____ Municipio _____

4. ¿Ha vivido o trabajado en otra Comunidad? sí () no ()

Si su respuesta es "sí"

¿Dónde?	¿Cuándo? año .. mes	Qué hizo Ud.

5. Ocupación

- (0) Desempleado
- (1) Agricultura (dueño de su tierra)
- (2) Agricultura (trabaja tierra de su familia)
- (3) Peón (carece de habilidades especiales - trabaja para otros)
- (4) Semi-especializado (mecánico, carpintero, etc.)

- (5) Comerciante, tienda, etc.
- (6) Maestro
- (7) Burócrata
- (8) Otra

6. ¿Qué clase de trabajo le gustaría hacer?

(PREGUNTAS 7 - 16 SOLAMENTE PARA LOS QUE SABEN LEER Y ESCRIBIR)

7. ¿Hay aquí libros, revistas o periódicos que Ud. pueda leer?

- (1) sí (2) no

8. ¿Cuándo fué la última vez que usted leyó un periódico?
 (1) La semana pasada, (2) El mes pasado, (3) El año pasado,
 (4) Hace un año, (5) Hace muchos años, (6) No despues de
 la escuela, (7) Nunca.
 Nombre del periódico: _____
9. ¿Cuándo fué la última vez que usted leyó una revista?
 (1) La semana pasada, (2) El mes pasado, (3) El año pasado,
 (4) Hace un año, (5) Hace muchos años, (6) No después de
 la escuela, (7) Nunca.
 Nombre de la revista: _____
10. ¿Cuándo fué la última vez que usted leyó un libro?
 (1) La semana pasada, (2) El mes pasado, (3) El año pasado,
 (4) Hace un año, (5) Hace muchos años, (6) No despues de
 la escuela (7) Nunca.
 Nombre del libro leído: _____
11. Si usted pudiera comprar libros, ¿Qué clase de libros le gustaría comprar? _____
12. ¿Qué libros tiene usted? (No incluir las series de Juan - Panamericana) Lista de títulos o descripciones

13. ¿Qué número de libros hay en su hogar?
 Juan _____ Panamericana _____ libros escolares _____
14. ¿Ha recibido cartas?
 ¿Cuándo fué la última vez que usted recibió una carta?
 (1) Durante el mes pasado, (2) Durante el año pasado, (3) Muchas veces en el año, (4) Hace un año, (5) Hace muchos años, (6) Nunca.
15. Si la respuesta anterior es #1, 2 ó 3, preguntar: ¿Cuántas cartas ha recibido usted este año?
16. ¿Ha escrito cartas?
 ¿Cuándo fué la última vez que usted escribió una carta?
 (1) Durante el mes pasado, (2) Durante el año pasado, (3) muchas veces durante el año, (4) Hace un año, (5) Hace muchos años, (6) Nunca.

CONYUGE

17. (1) Soltera, (2) Casada (Si es soltera formular solamente las preguntas #27, 28)

18. Número de años que la esposa asistió a la escuela:

- (1) Ninguno, (2) Un año, (3) Dos años, (4) Tres años,
(5) Cuatro años, (6) Cinco años (7) Seis años o más

19. Grado alcanzado por la esposa:

- (1) Ninguno, (2) Primero, (3) Segundo, (4) Tercera, (5) Cuarto
(6) Quinto, (7) Sexto o más.

20. ¿Puede su esposa leer? (1) No, (2) Un poquito, (3) Bien

21. ¿Puede su esposa escribir? (1) No, (2) Un poquito, (3) Bien.

FAMILIA

22. Hijos

Nombre	Edad	Sexo	Años de escuela	Grado completado (Si todavía en la escuela)

23. Hijos ilegítimos

24. Hijos muertos

Edad	Sexo	Causa de la muerte.

25. ¿Cuántos años le gustaría que sus hijos asistieran a la escuela?

26. ¿Cuántos años piensa Ud. que ellos puedan asistir a la escuela?

Número de personas que viven en la casa de la persona entrevistada:

28. ¿Quién es el dueño de la casa? (Nombre _____)
Parentesco _____

29. Parientes (Indicar con "M" si muerto)

Parentesco	Nombre	Lugar de nacimiento	Edad	Años de escuela	Grado completo	(a) Lee bien (b) Lee un poco (c) No sabe leer	Ocupación:	(1) Agricultura (2) No agricultura	Dónde vive
Madre									
Padre									
Hermanos									
Hermanas									

CASA

30. Construcción de la casa: (1) Adobe, (2) Bajareque, (3) Entoldado
(4) Paja, (5) Otro material.

31. Techo: (1) Teja, (2) Paja, (3) Otro material

32. Cocina: (1) cocina separada, (2) cocina dentro de la casa

33. Cuartos: (Indicar el número de cuartos)

Número de camas en la casa (Indicar el número)

35. Luz: (1) Electricidad, (2) Kerosina, (3) Farol Coleman, (4) candela, (5) otra iluminación.
36. Pisos: (1) ladrillo o baldosa, (2) cemento, (3) tierra
37. Origen del agua: (1) Río o nacimiento, (2) pozo propio, (3) pozo del vecino, (4) Servicio Municipal de agua.
38. Sanitario: (1) Letrina, (2) Inodoro, (3) campo o bosque
39. (Si la persona entrevistada trabaja en agricultura)
(1) trabaja en tierra propia, (2) trabaja en tierra del padre, (3) trabaja ambas, su propia tierra y la del padre, (4) trabaja en la tierra de un pariente, (5) trabaja su propia tierra y en la de un pariente, (6) trabaja en tierras de la comunidad, (7) trabaja para otra persona.
40. Número de manzanas que posee la persona entrevistada.
41. Número de manzanas arrendadas.
42. Si la persona entrevistada no posee o arrenda tierras, y trabaja en la tierra de sus parientes u otras personas, indicar si: (1) Recibe una parte de la cosecha, (2) el pago es por día, (3) no recibe pago o parte de la cosecha por su trabajo en familia.
43. Número de manzanas que posee el padre
44. Número de manzanas trabajadas en tierras de la comunidad.
45. ¿Ha usado usted (o el jefe de la casa en donde usted vive) fertilizantes para el maíz este año? (1) si (2) no.

Tipo de fertilizante: _____

46. ¿Cuántas manzanas de maíz sembró usted (o su padre) este año?
47. ¿Cuántos quintales de maíz cosechó?
48. ¿Cuántas manzanas de frijol sembró usted (o su padre) este año?
49. ¿Cuántos quintales de frijol cosechó?
50. ¿Tiene usted (o el jefe de la casa) un granero?
(1) un granero, (2) dos graneros, (3) tres graneros, (4) ninguno.
51. ¿Ha vendido usted (o su padre) maíz este año? (1) si (2) no
52. Si la respuesta a la 51 es sí, preguntar: ¿Cuál fué el precio de venta por quintal?
53. ¿Cuántos quintales de maíz fueron vendidos?
54. ¿Antes de recoger la cosecha este año tuvo usted que comprar maíz para que la familia comiera? (1) si (2) no

55. (Si la respuesta es sí a la 54) ¿Cuántos quintales compró usted?

56. ¿Cuánto ha pagado usted por quintal?

57. ¿Ha vendido usted frijol este año (desde Agosto)?
(1) sí, (2) no

58. (Si la respuesta a la 57 es sí) ¿Cuál fué el precio de venta por quintal?

59. ¿Cuántos quintales de frijol fueron vendidos?

60. ¿Antes de la cosecha de este año compró usted frijol?
(1) sí, (2) no

61. (Si la respuesta a la 60 es sí) ¿Cuántos quintales de frijol compró usted?

62. ¿Cuánto ha pagado usted por quintal?

63. ¿Cuántos quintales de maíz tiene usted almacenados o todavía por cosechar?

64. ¿Cuántos quintales de frijol tiene usted almacenados?

NOTA al entrevistador: La respuesta a la pregunta #47 debe ser igual a la suma de las respuestas #53 y 63. La respuesta a la #49 debe ser igual a la suma de las respuestas de la #59 y 64. Si las respuestas no concuerdan, indique las razones.

GANADO y otros animales (Indicar el número de cada uno)

65. Vacas lecheras

66. Novillas

67. Bueyes

68. Cerdos

69. Caballos, mulas

70. Pollos

71. Patos

72. Pavos

73. ¿Ha trabajado usted para otros por jornal desde el mes de Enero?
(1) sí, (2) no.

74. (Si la respuesta a la 73 es sí) ¿En dónde? _____

75. ¿Cuándo? (Indicar meses) _____

76. ¿Cuántos días o semanas trabajó usted? _____ días _____ semanas

77. ¿Cuánto ganó usted por día?
78. ¿Tiene usted otros ingresos? (Carpintero, etc.)
Indicar otra fuente de ingreso: _____
79. ¿Cuánto ganó usted de esa ocupación (Carpintero, etc.) desde el mes de Enero?

ALIMENTACION

80. ¿Qué es lo que usted acostumbra comer en el desayuno?
Tortillas (), Frijoles (), Café (), Queso (), Otro (indicarlo)

81. ¿Qué es lo que usted acostumbra comer en el almuerzo?
Tortillas (), Frijoles (), Café (), Queso (), Otro (indicarlo)

82. ¿Qué es lo que usted acostumbra comer en la comida?
Tortillas (), Frijoles (), Café (), Queso (), Otro (indicarlo)

83. ¿Con qué frecuencia come usted tamales? (1) diariamente,
(2) más de una vez por semana, (3) semanalmente, (4) alrededor de 2 veces al mes, (5) alrededor de una vez al mes, (6) menos de una vez por mes, (7) nunca.
84. ¿Con qué frecuencia toma usted leche? (1) diariamente, (2) más de una vez por semana, (3) semanalmente, (4) alrededor de dos veces al mes, (5) alrededor de una vez al mes, (6) menos de una vez por mes, (7) nunca.
Indicar cual de las dos: Leche fresca (), Leche en polvo ().
85. ¿Con qué frecuencia come usted queso? (1) diariamente, (2) más de una vez por semana, (3) semanalmente, (4) alrededor de dos veces al mes, (5) alrededor de una vez al mes, (6) menos de una vez por mes, (7) nunca.
86. ¿Con qué frecuencia come usted carne de res? (1) diariamente, (2) más de una vez por semana, (3) semanalmente, (4) alrededor de dos veces al mes, (5) alrededor de una vez al mes, (6) menos de una vez por mes, (7) nunca.
87. ¿Con qué frecuencia come usted pollo? (1) diariamente, (2) más de una vez por semana, (3) semanalmente, (4) alrededor de dos veces al mes, (5) alrededor de una vez al mes, (6) menos de una vez al mes, (7) nunca.
88. ¿Con qué frecuencia come usted carne de marrano? (1) diariamente, (2) más de una vez por semana, (3) semanalmente, (4) alrededor de dos veces al mes, (5) alrededor de una vez al mes, (6) menos de una vez al mes, (7) nunca.

89. ¿Qué verduras come usted? (enumere solamente las verduras mencionadas en la columna de la izquierda) ¿Con qué frecuencia come las verduras mencionadas?

_____ (1) diariamente, (2) más de una vez por semana en su época, (3) alrededor de una vez por semana en su época, (4) menos de una vez por semana en su época.

_____ Indicar si las verduras mencionadas son también consumidas en el invierno (1) si (2) no.

_____ (1) diariamente, (2) más de una vez por semana en su época, (3) alrededor de una vez por semana en su época, (4) menos de una vez por semana en su época.

Indicar si las verduras mencionadas son también consumidas en el invierno (1) si (2) no.

_____ (1) diariamente, (2) más de una vez por semana en su época, (3) alrededor de una vez por semana en su época, (4) menos de una vez por semana en su época.

Indicar si las verduras mencionadas son también consumidas en el invierno (1) si (2) no.

_____ (1) diariamente, (2) más de una vez por semana en su época, (3) alrededor de una vez por semana en su época, (4) menos de una vez por semana en su época.

Indicar si las verduras mencionadas son también consumidas en el invierno (1) si (2) no.

_____ (1) diariamente, (2) más de una vez por semana en su época, (3) alrededor de una vez por semana en su época, (4) menos de una vez por semana en su época.

Indicar si las verduras mencionadas son también consumidas en invierno (1) si (2) no.

Otras verduras mencionadas _____

90. ¿Qué fruta come usted? (enumere solamente las frutas mencionadas en la columna de la izquierda) ¿Con qué frecuencia come las frutas mencionadas?

_____ (1) diariamente, (2) más de una vez por semana en su época, (3) alrededor de una vez por semana en su época, (4) menos de una vez por semana en su época.

_____ (1) diariamente, (2) más de una vez por semana en su época, (3) alrededor de una vez por semana en su época, (4) menos de una vez por semana en su época.

_____ (1) diariamente, (2) más de una vez por semana en su época, (3) alrededor de una vez por semana en su época, (4) menos de una vez por semana en su época.

_____ (1) diariamente, (2) más de una vez por semana en su época, (3) alrededor de una vez por semana en su época, (4) menos de una vez por semana en su época.

_____ (1) diariamente, (2) más de una vez por semana en su época, (3) alrededor de una vez por semana en su época, (4) menos de una vez por semana en su época.

91. ¿Si tuviera usted la oportunidad de escoger su comida, ¿qué clase de comida escogería?

92. ¿Qué alimentos son los mejores para usted? (los mejores para su cuerpo)

93. ¿Qué es Incaparina? (1) Sabe (2) No sabe

94. ¿Ha usado usted Incaparina? (1) Si (2) No.

95. Algunas personas dicen que un eclipse trae mala suerte. ¿Qué piensa usted? (1) No tiene significado - es solamente un fenómeno natural, (2) Afecta a los niños por nacer y a las mujeres encinta, (3) Tiene otros malos efectos.

96. ¿Qué es un eclipse? (1) Sabe (2) No sabe.

SALUD

97. ¿Cuáles son las enfermedades más comunes en su familia?

Enfermedad mencionada:	¿Cuáles son los síntomas?	¿De dónde viene la enfermedad?	¿Que hace usted para combatirla?

98. ¿Qué enfermedad ha tenido usted este año, desde Enero?

99. ¿Tiene usted medicinas en su casa? (Enumere medicinas mencionadas)

100. (Si mencionó enfermedad en #98) ¿Ha visitado usted al Doctor este año?

¿Cuál es su nombre? _____

¿Donde vive él? _____

¿Cuántas veces le ha visitado usted? _____

¿Ha visitado usted a otro Doctor? _____

¿Cuál es su nombre? _____

101. ¿Con qué frecuencia se baña usted? (1) diariamente, (2) más de una vez por semana, (3) semanalmente, (4) cada dos semanas, (5) varias veces al mes, (6) alrededor de una vez al mes, (7) menos de una vez al mes.

¿Usa usted jabón? (1) Si (2) No.

102. ¿Se limpia usted los dientes? ¿Cómo se limpia usted los dientes?

(1) Se enjuaga la boca con agua, (2) Se enjuaga la boca con agua de sal, (3) Usa cepillo de dientes, (4) otro, (5) no se limpia los dientes.

103. Si la respuesta es "usa cepillo de dientes", preguntar: ¿Cuántos cepillos de dientes hay en su casa? (1) Un cepillo de dientes para toda la familia, (2) Un cepillo de dientes para cada miembro de la familia, (3) La familia comparte varios cepillos de dientes.
104. ¿Ha estado usted en la capital de Guatemala? ¿Cuándo?
 (1) Hace menos de un mes, (2) este año, (3) varias veces este año,
 (4) Hace un año, (5) hace varios años, (6) nunca.
 ¿Por qué fué usted? _____
105. ¿Desde el mes de Enero, aproximadamente cuántas veces ha estado usted en un autobús o automóvil? (1) más de 10 veces, (2) 5 - 10 veces, (3) 3 - 4 veces, (4) 1 - 2 veces, (5) ninguna.
106. ¿A dónde fué usted en su último viaje? _____
 ¿Por qué fué? _____
107. ¿Cuál es el viaje más largo que usted ha dado? _____
108. ¿Posee usted un radio? (1) Si (2) No.
109. ¿Conoce usted a alguien que posea un radio? (1) Si (2) No
110. ¿Cuándo fué la última vez que usted escuchó radio? (1) Cada día,
 (2) hace pocos días, (3) Hace una semana, (4) Hace un mes, (5) Hace un año, (6) nunca.
111. La última vez que usted escuchó la radio ¿qué oyó usted?

112. ¿Qué le gusta escuchar en la radio? _____
113. ¿Ha visto usted alguna vez una película? (1) Si (2) No
114. Si la respuesta es afirmativa, ¿en dónde? (1) en la comunidad local,
 (2) en Jutiapa, (3) en otra comunidad, (4) en la capital, (5) en más de un lugar.
115. Desde el mes de Enero de este año, ¿cuántas veces ha visto usted películas?
 (1) una, (2) dos veces, (3) tres veces, (4) cuatro veces, (5) cinco o más veces, (6) ninguna.
116. ¿Cuál fué la última película que usted vió? _____
117. ¿Qué clase de película le gustaría a usted ver? _____
118. ¿Ha pedido usted ayuda alguna vez al Gobierno? (1) si (2) no
119. ¿Qué clase de ayuda ha pedido? _____

120. ¿Ha recibido usted alguna vez ayuda del Gobierno? (1) si (2) no

(Si la respuesta es "si" explicarla) _____

121. (Si la persona es analfabeta)

¿Conoce usted a otros que leen el periódico? (1) si (2) no

(Si la respuesta es "si" ¿quién? _____

122. ¿Le dice él a usted las noticias? (1) si (2) no

123. ¿Qué clase de noticia es más importante para usted?

124. ¿Cuánto piensa usted que un trabajador debe recibir por día?

125. ¿Ha recibido algunos préstamos este año?
Del Banco Agrario () Del SCICAS ()

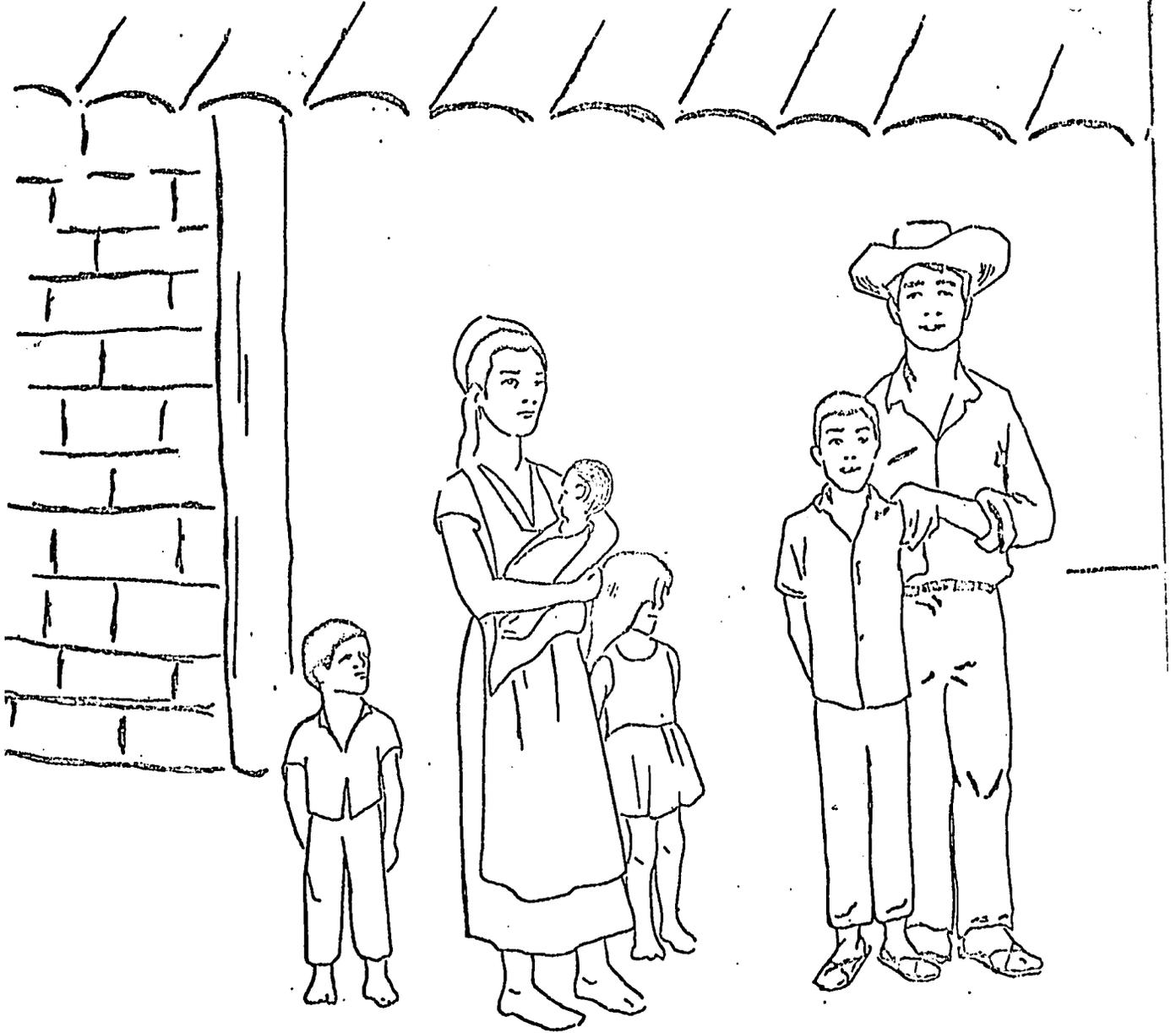
LITERACY INTEREST TEST

FIGURA 1

- A. Cuénteme un cuento sobre lo que ve en este dibujo. ¿Quiénes aparecen en él? ¿Qué está pasando? ¿Puede decirme más del dibujo?
- B. 1. Esta es una familia. ¿Qué es lo que más desea el padre para su familia?
2. ¿Qué es lo que él más desea para sus hijos? ¿Puede decirme más?
3. ¿Qué es lo que él más desea para su hija? ¿Puede decirme más?

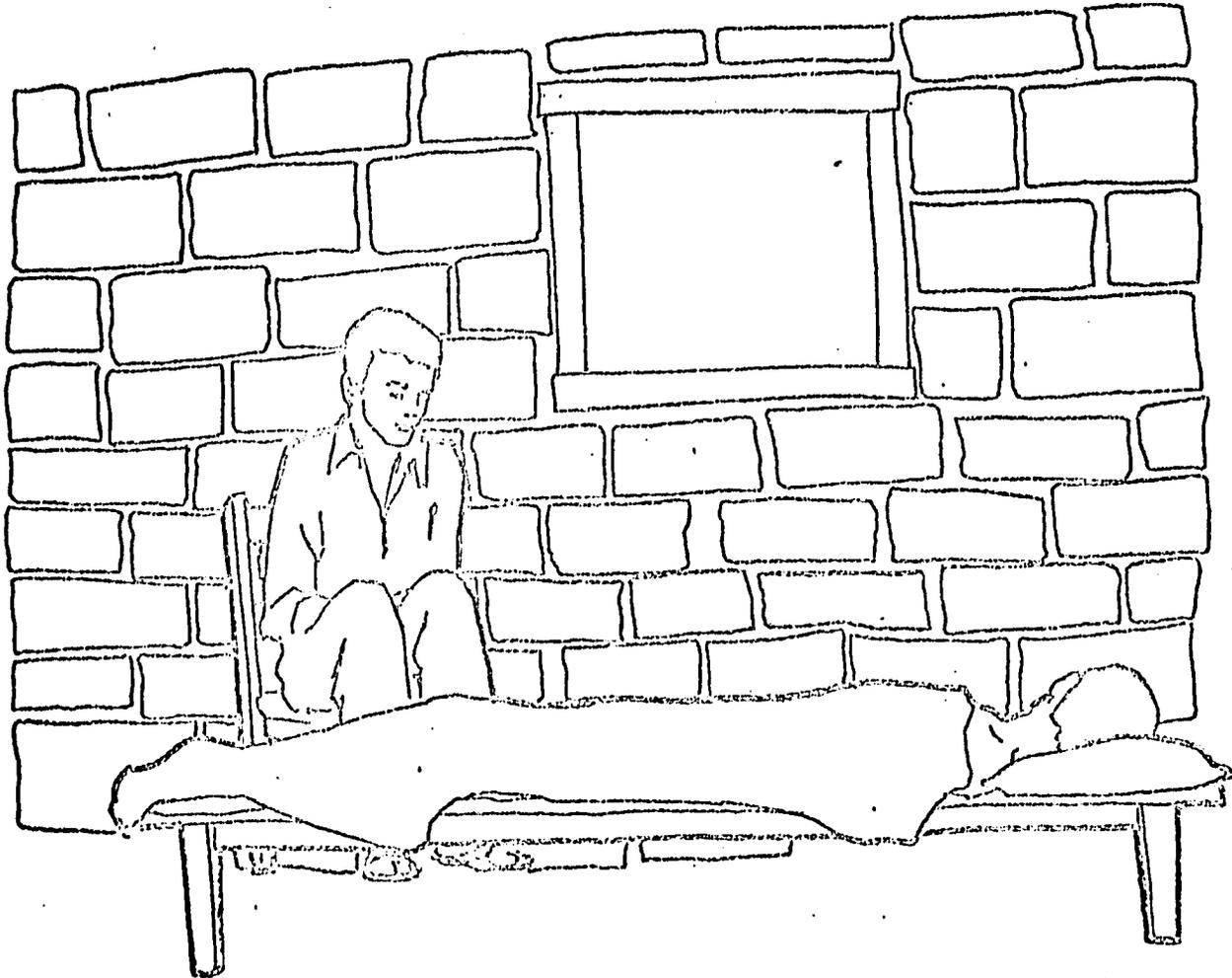


FIGURA 2

- A. Cuénteme un cuento sobre lo que ve en este dibujo. ¿Quiénes aparecen en él? ¿Qué está pasando? ¿Puede decirme alguna otra cosa del dibujo?
(Si no identifica la figura: Imagínese que es una persona enferma).
- B.
1. ¿Qué enfermedad tiene esta persona?
 2. ¿Qué causó esta enfermedad?
 3. ¿Qué se puede hacer para curar esta enfermedad?

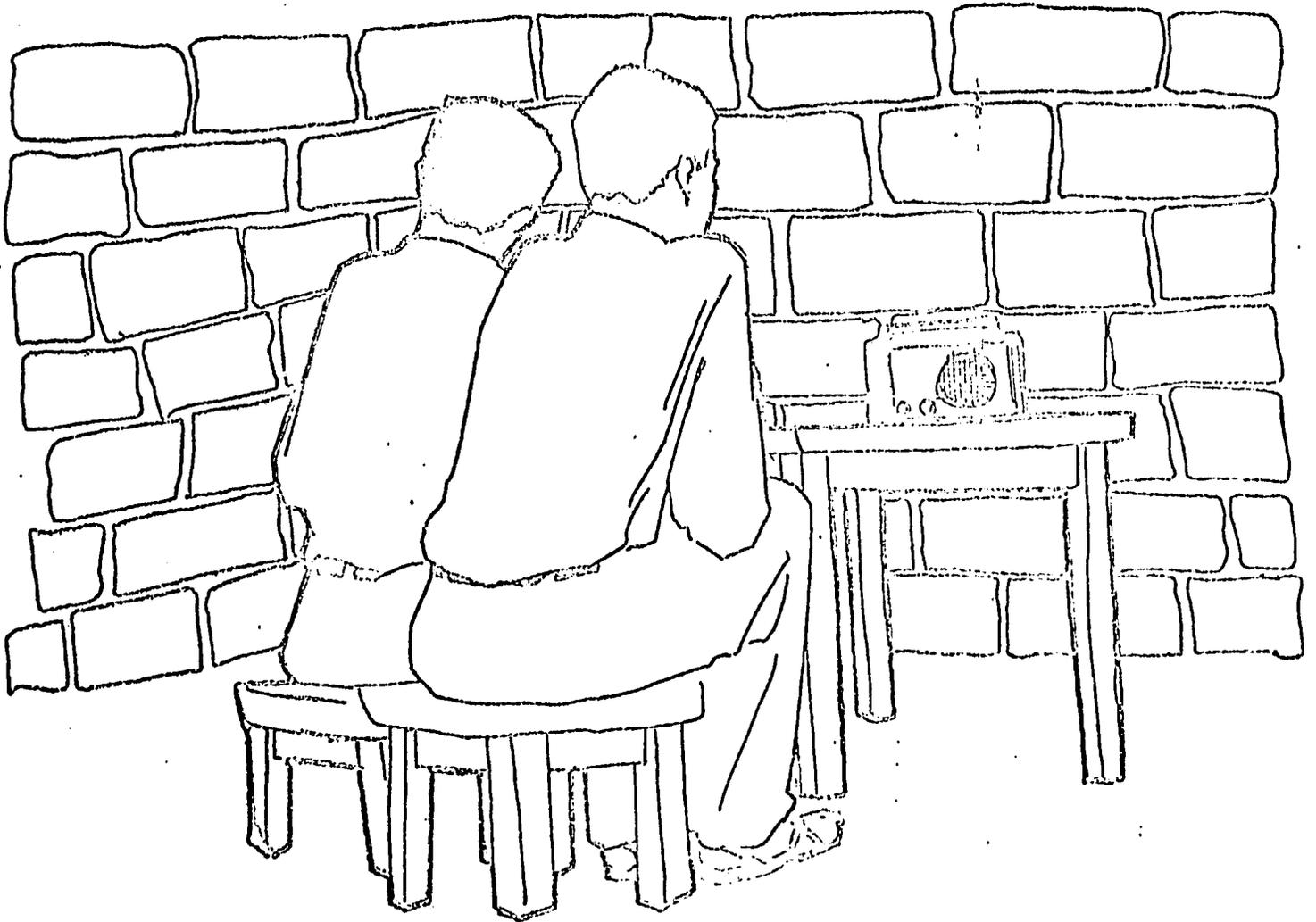


FIGURA 3

- A. Cuénteme un cuento sobre lo que ve en este dibujo. ¿Quiénes aparecen en él? ¿Qué está pasando? ¿Puede decirme más del dibujo? (Imagínese que están escuchando el radio.)
- B.
1. ¿Por qué escucha él la radio?
 2. ¿Cree vd. que es importante escuchar el radio? ¿Por qué?
 3. ¿Qué le interesa más a vd. escuchar en el radio?
¿Por qué?

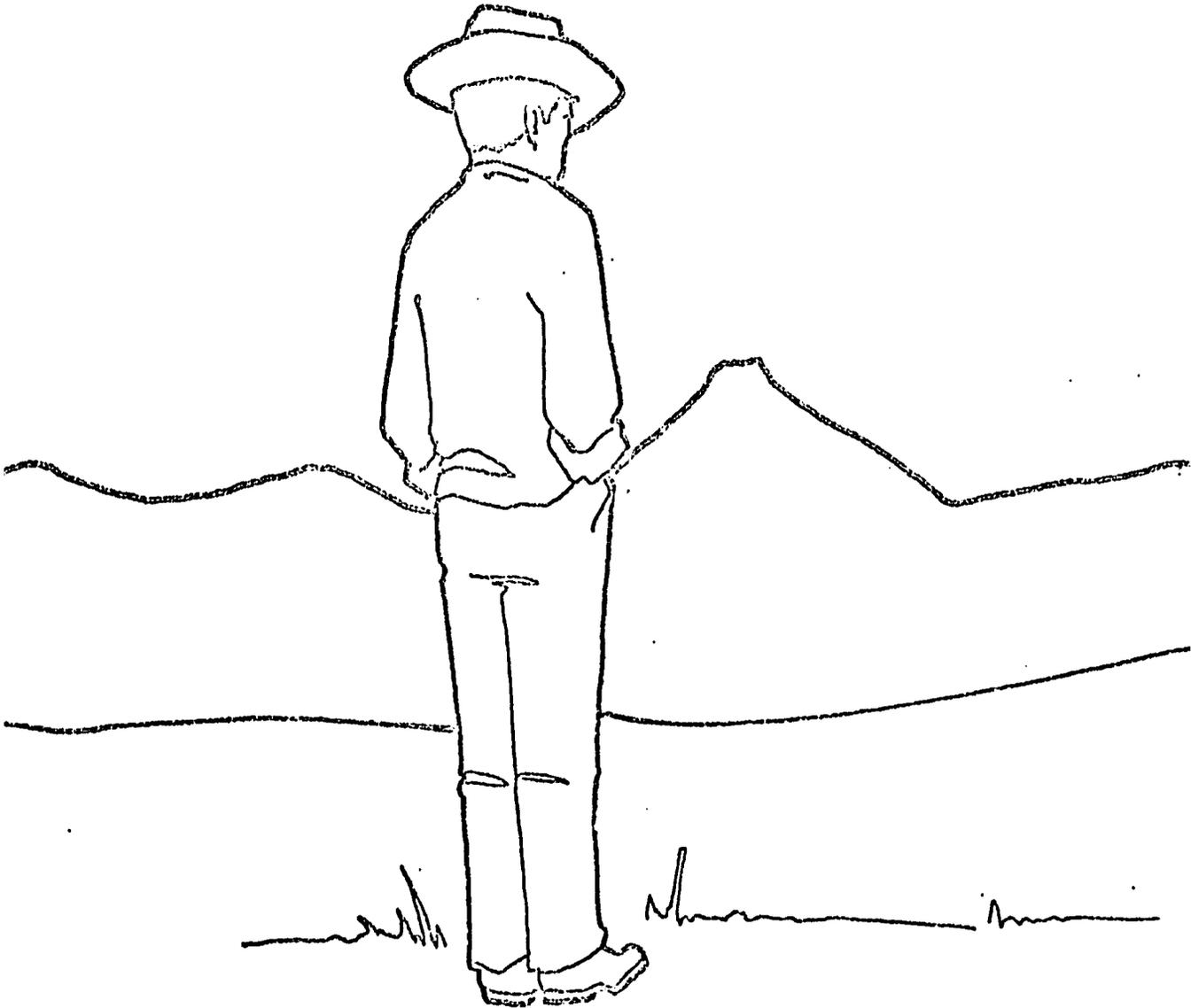


FIGURA 4

- A. Cuénteme un cuento sobre lo que ve en este dibujo. ¿Quién aparece en él? ¿Qué está pasando? ¿Puede decirme más del dibujo?
- B.
1. Imagínese que este hombre está pensando en el futuro ¿Qué está pensando él?
 2. ¿Cuáles han sido sus tiempos más felices?
 3. ¿Cuál han sido sus tiempos más duros?
 4. Supóngase que alguien le ha dado a este hombre una cantidad de dinero igual a la que gana en un año. ¿Qué hará él con ese dinero?

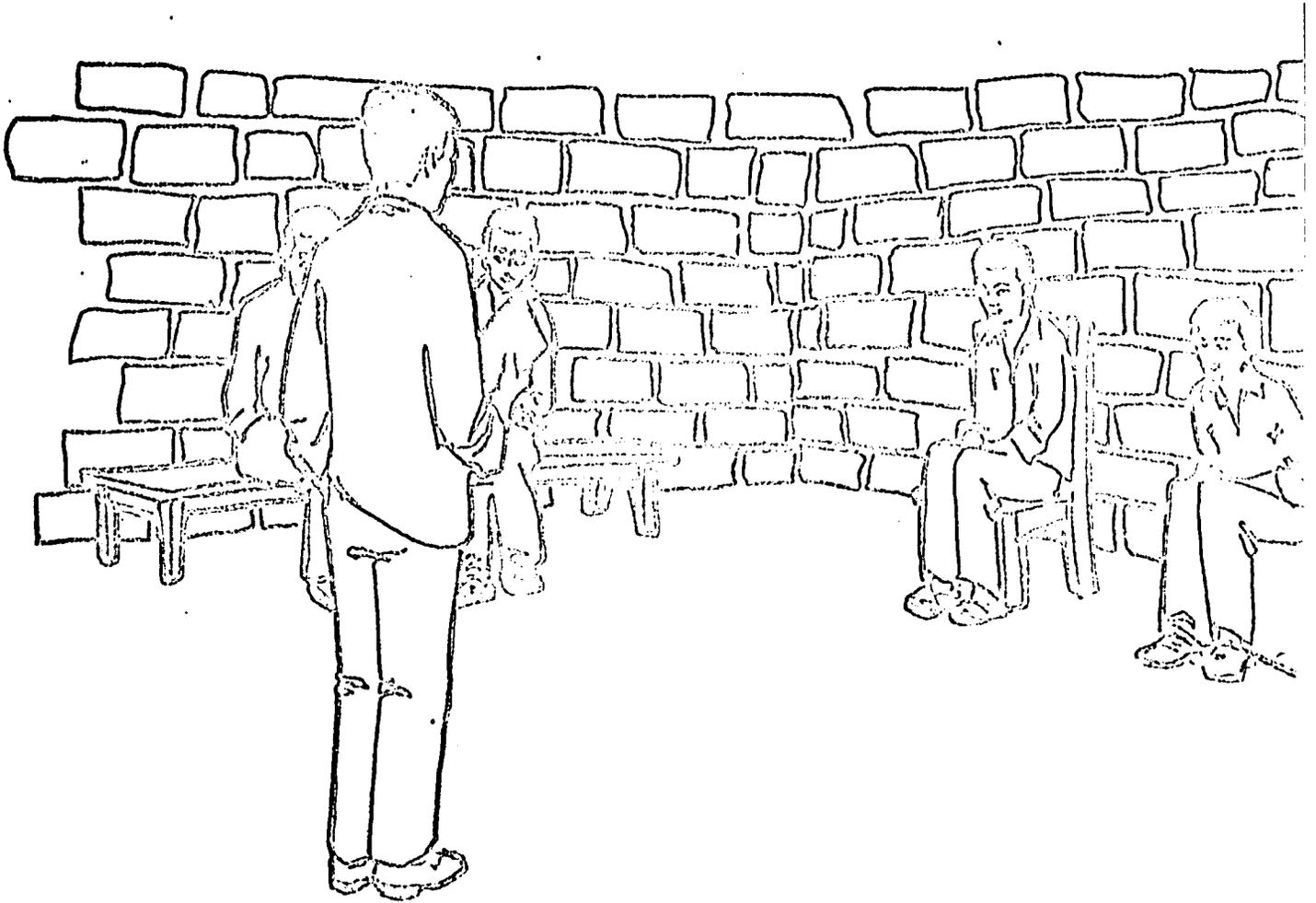


FIGURA 5

- A. Cuénteme un cuento sobre lo que ve en este dibujo. ¿Quiénes aparecen en él? ¿Qué está pasando? ¿Puede decirme más del dibujo?
- B. 1. Ahora imagínese que estos hombres están hablando sobre un plan para su comunidad. ¿Qué clase de plan cree usted que pueda ser?
2. ¿Qué es la cosa más importante que ellos podrían hacer para mejorar su comunidad?

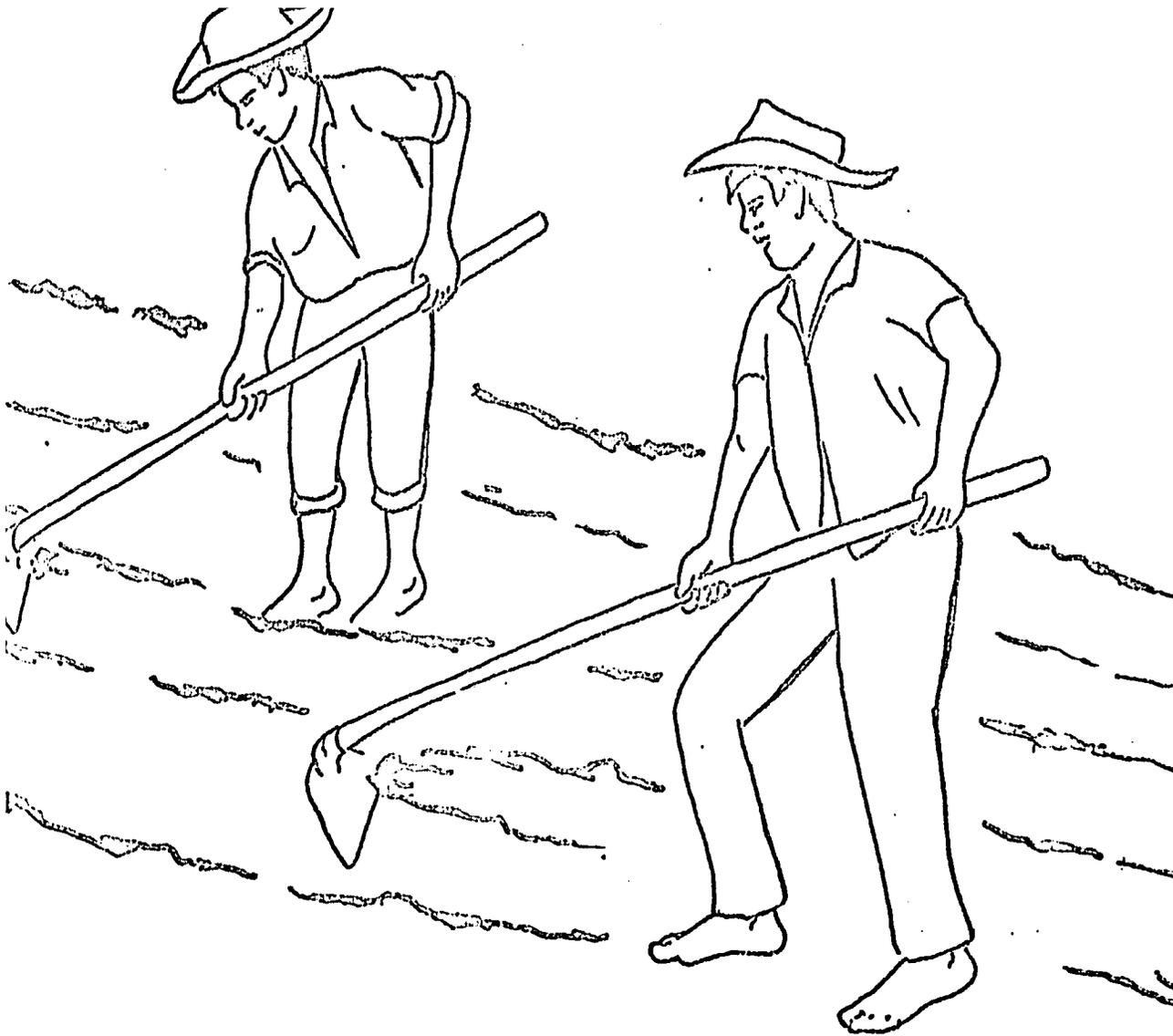


FIGURA 6

- A. Cuénteme un cuento sobre lo que ve en este dibujo.
¿Quiénes aparecen en él? ¿Qué está pasando? ¿Puede decirme más del dibujo?
- B.
1. Estos hombres están trabajando en la milpa.
 ¿Están ellos satisfecho con lo que cosecha?
 ¿Por qué?
 2. ¿Qué podrán hacer ellos para mejorar la cosecha en esta tierra?
 3. ¿Qué más podrían hacer ellos para aumentar sus ingresos?

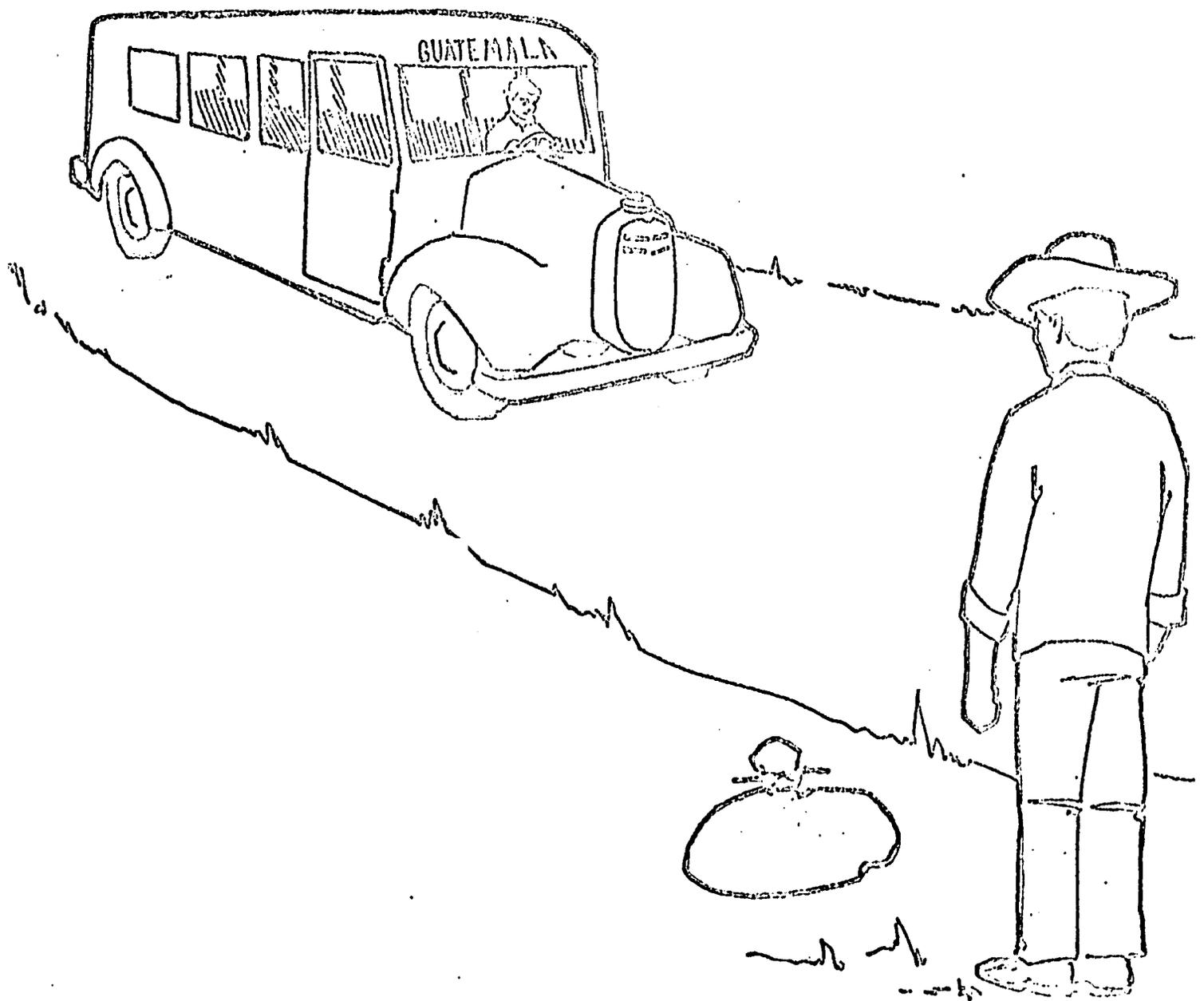


FIGURA 7

- A. Cuénteme un cuento sobre lo que ve en este dibujo. ¿Quiénes aparecen en él? ¿Qué está pasando? ¿Puede decirme más del dibujo?
- B.
1. Imagínese que este hombre va la capital a buscar trabajo. ¿Qué clase de trabajo encontrará él?
 2. Ahora imagínese que el Alcalde le pidió que le llevara un mensaje al Presidente. ¿Qué piensa usted que será el mensaje?
 3. ¿Cuál será la contestación del Presidente?

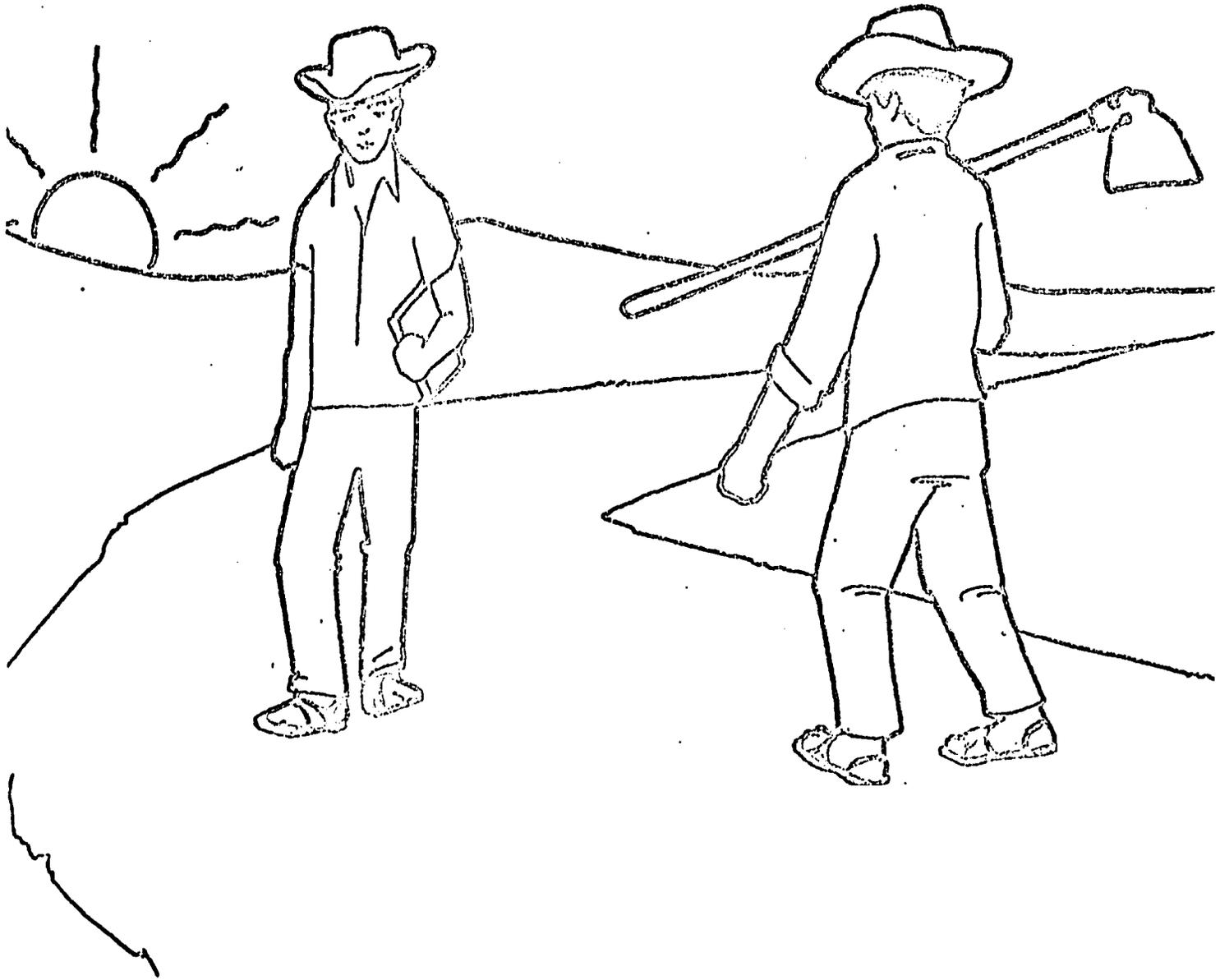


FIGURA 8

- A. Cuénteme un cuento sobre lo que ve en este dibujo. ¿Quiénes aparecen en él? ¿Qué está pasando? ¿Puede decirme más del dibujo?
- B. 1. (Si la figura no ha sido descrita). Este va a la escuela a aprender a leer y escribir, el otro no ha asistido a la escuela. ¿Cuál de ellos hace el trabajo más útil? ¿Por qué?
2. ¿Cómo le va a ayudar saber leer y escribir en su vida dentro de cinco o diez años?

LADDER RATING INTERVIEW
ENTREVISTA DE CLASIFICACION DE LA ESCALERA

NOMBRE _____

ENTREVISTA # _____

LUGAR _____

FECHA _____

Entrevistador: Entregue al informante la tarjeta que muestra una escalera. Señale el extremo superior de la escalera cada vez que lo mencione (el extremo superior es el peldaño No. 4). Señale el extremo inferior cada vez que lo mencione. Al hacer una pregunta, mueva el dedo rápidamente de arriba a abajo de la escalera.

1. Aquí tiene un cuadro que representa una escalera. Supongamos que en el peldaño más alto está una persona que vive en las mejores condiciones posibles de vida y que en el peldaño más bajo está una persona que vive en las peores condiciones posibles de vida.

¿En cuál peldaño de la escalera diría usted que se encuentra? _____

2. Suponga que en el peldaño más alto de la escalera esté una persona libre de preocupaciones respecto al futuro, que se siente confiada y tranquila; en otras palabras, segura. En el peldaño más bajo de la escalera está una persona que está preocupada respecto al futuro y que no siente ninguna confianza o seguridad.

¿En cuál peldaño de la escalera se encuentra usted? _____

3. Ahora, en el peldaño más alto de la escalera está una persona que tiene mucha influencia sobre la gente con quien trabaja, sobre sus vecinos, amigos y otras personas. En el peldaño más bajo está una persona con poca o ninguna influencia sobre los demás.

¿En cuál peldaño cree que está usted? _____

4. En el peldaño más alto de la escalera está una persona a quien le agradirn mucho las demás personas. Tiene muchos amigos y es una persona que agrada a sus vecinos, a sus compañeros de trabajo, etc. En el peldaño más bajo está una persona que no gusta de las demás personas y de quién los demás gustan poco.

¿En cual peldaño de la escalera está usted? _____

5. En el peldaño más alto de la escalera está una persona a quien le gusta estar haciendo cosas nuevas siempre. Le gusta llevar una vida llena de emociones y cambios aunque ello le proporcione dificultades. En el peldaño más bajo está una persona a quien no le gusta hacer cosas nuevas y que quiere una vida muy segura, sin ningún cambio.

¿En cuál peldaño de la escalera se encuentra usted ahora? _____

6. En el peldaño más alto de la escalera está alguien que puede hacer mucho para hacer su vida más feliz. En el peldaño inferior, o más bajo, está una persona que puede hacer muy poco para hacer su vida más feliz.

¿En que lugar de la escalera se encuentra usted ahora? _____

7. En el peldaño más alto de la escalera está una persona que piensa que su comunidad es mucho más importante que él mismo. En el peldaño más bajo de la escalera está una persona que piensa que él es mucho más importante que su comunidad.

¿En qué peldaño de la escalera está usted? _____

8. En el peldaño más alto está alguien que piensa que él es mucho más importante que su familia. En lo más bajo de la escalera está una persona que piensa que su familia es más importante que él mismo.

¿En qué peldaño de la escalera está usted? _____

9. En el peldaño más alto está una persona que piensa que él es mucho más importante que su trabajo. En el peldaño más bajo está alguien que piensa que su trabajo es más importante que él mismo.

¿En qué peldaño se encuentra usted? _____

10. En el peldaño más alto está una persona que siempre prueba nuevos métodos para la crianza de los niños. En el peldaño más bajo está alguien que nunca prueba nuevos métodos para criar a los niños.

¿En qué peldaño está usted? _____

11. En el peldaño más alto de la escalera está alguien que siempre le gusta probar nuevos métodos de cultivo. A él le gusta usar nuevas clases de maíz, fertilizantes nuevos, formas diferentes de cultivar sus campos. En lo más bajo de la escalera está un hombre que no le gusta probar nuevos métodos. Él piensa que es mejor usar la clase de semilla y los métodos de cultivo que su padre y vecinos han usado siempre.

¿En qué peldaño de la escalera se encuentra usted? _____

12. En el peldaño más alto de la escalera está un hombre que halla muy fácil cambiar su manera para hacer las cosas y en lo más bajo de la escalera está una persona que halla muy difícil cambiar su manera para hacer las cosas.

¿En qué peldaño se encuentra usted? _____

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