MEASUREMENT OF ATTITUDES AND BEHAVIOR RELATED TO DEVELOPMENT

A research study prepared by R. Hayes Keeler
under USAID contract No. AID-518-247

Quito - Ecuador

September 1971

ACKNOWLEDGEMENTS

Over the two year period of this study many individuals gave their time and cooperation and suggestions to help us better understand and measure development from the perspective of individual growth.

Ed Hirabayashi and Paul Vitale were instrumental in bringing the study into being with the support of Bob Minges. Gene Braun, Tom Donnelly, Dick Greene, Lew Townsend, Gary Bergthold, and Jon Gant provided encouragement and help. The concepts and specific indicators were developed with the help of Raúl Arturo, Edgar Jácome, Fernando Cruz, Patricio Barriga, César Vélez, Ramiro León, Tony Schumacher and Jerry Sturmer. Many other individuals -- campesinos, teachers, coop members, change agents - patiently submitted to pretests and provided valuable suggestions. Jeff Ashe was an equal partner in the first year of the study thanks to the support of Joe Haratani and John Arango.

The arduous work of administering long interview schedules was under the direction of Rodrigo Mera, Esteban Vega and Aníbal Villacís who trained fifty-five interviewers throughout Ecuador. Ed Goff and Mal Foley provided invaluable assistance as computer programmers. Carmen Foley, Patricia Silva, and Martha Moreno did most of the coding, and with the help of Rodrigo, Esteban, and Aníbal, transferred the data to IBM cards.

Special thanks are due to development program managers who permitted us to interview participants of their programs. Lew Townsend and Gustavo Riofrío of CLUSA, Manuel Benítez and Tony Schumacher of the Credit Coop Federation, Daniel Muñoz and John Berman of the Ecuadorean Development Foundation in Guayaquil, Justo Andrade of the Plan Piloto in Cuenca, Gene Braun and his staff at the Centro de Motivación y Asesoría (CEMA) of the Motivation Training program, and B Ll Long and Mike Crampton in the Santo Domingo area.

The interest shown by so many individuals in the problem of more effectively stimulating individual change has certainly justified the attempt to apply empirical research techniques toward better analysis of this problem.

The concepts and indicators developed in this study will undoubtedly be refined with use; they represent but a small step toward more precise understanding of individual change in the development context.

We hope that in demonstrating that individual attitudes and behavior patterns related to development can be measured and are relevant to development to encourage development program managers to include attitude and behavior changes explicitly in their program objectives.

C O N T E N T S

MEASUREMENT OF ATTITUDES AND BEHAVIOR RELATED TO DEVELOPMENT

This is a report of a research project that was designed to develop concepts and measures of attitudes and behavior patterns related to development. The project grew out of the efforts of creative staff members of the U.S.A.I.D. Mission to Ecuador to place more emphasis on individual growth in development programs. In order to diagnose individual growth problems and to evaluate the effectiveness of different methodologies used by development programs they needed indicators of key growth concepts. This research project attempts to provide these indicators.

Research Methodology

The research process went through six phases - concept development, item construction and testing, sampling, data gathering, data processing, and analysis. (1) Individual growth concepts emerged from the ideas of Ecuadorean and U.S. development specialists in Ecuador and from the more theoretical work of David McClelland* and Alex Inkeles.** Seven attitude concepts and four behavioral concepts, which will be explained in detail, were developed. Attitudinal concepts were: Aspirations, Openness, Sense of Efficacy, Problem Solving Ability, Dependency, Respect for Others and Self-Confidence. Dependency was combined with Efficacy and Self-Confidence was discarded because of unsatisfactory results despite extensive pretesting of the indicators. Thus, five attitude concepts remain. The four behavioral concepts are: Organizational Participation, Community Development Participation, Use of New Technology, and Growth Activities. (2) Questionnaire items were constructed with the help of Ecuadoreans, Peace Corps Volunteers, the previous work of Professor Inkeles, and attitude scales used in the United States. Most items were closed (fixed response) questions but a number of open questions were also used, especially to measure problem solving ability. Five pretests were run, three with poor farmers, one with primary teachers, and one with white collar employees. (3) Samples were drawn from eight different development programs and interviews with eight occupation groups were obtained. In addition, Peace Corps Ecuador used the questionnaire to interview an area sample of urban Santo Domingo. The total sample by groups is:

---

* David McClelland, The Achieving Society, 1961, Motivating Economic Development, 1970.

** Alex Inkeles and David Smith, "The OM Scale - A Comparative Socio-Psychological Measure of Individual Modernity," Sociometry, December 1966. Complete questionnaire, Document 9133, Library of Congress.

Development Program	Program Sponsor	Type Sample	No. of Interviews
a) Motivational Training (national)	USAID, formerly USAID, Peace Corps	Total participants with 4 or more days contact with program*	340
b) Credit Cooperatives (national)	USAID-CUNA	Stratified by type, location, urban-rural and quality	792
c) Rice Cooperatives	USAID-CLUSA	Stratified by quality (good average, bad)	265
d) Agricultural Cooperatives (sierra)	USAID-CLUSA	Stratified by quality and region	234
e) Colonization (oriente)	CREA-Peace Corps	Total	115
f) Colonization	IERAC-Peace Corps Area	Area sample	245
g) Adult Literacy (sierra)	Min. of Education UNESCO	Stratified by Urban-Rural	221
h) Small Loans (Guayaquil)	Ecuadorean Development Foundation	Stratified by repayment record	194
i) Urban Santo Domingo	At request of Peace Corps	Area sample	221
		TOTAL	2,607

* Many participants in the Motivation Training sample were not interviewed due to extreme difficulty in locating them. No addresses were on record.

The interviews with occupation groups were not done on a sampling basis because it was impossible to identify a reasonable universe within available resource limits. Furthermore a national or regional area sample was out of the question for the same reasons. Therefore when the occasion arose, interviews with different occupation groups were obtained in order to have some idea of how the indicators functioned with individuals who were not participants in development programs. For example school teachers from all regions of Ecuador were in Quito for training in the use of new textbooks and were interviewed. University students who were forming a volunteer group were interviewed. Applicants (university students) for the job of interviewer in the project itself were interviewed before any training or explanation was given of the project.

A special effort was made to obtain a susbstantial number of campesino interviews in areas where development programs operated in order to gain some comparability with the campesinos who were participants in the programs studied. Most of the interviews with laborers, artisans, and white collar workers were obtained in the training of the interviewers.

Occupational Groups	No. of Interviews
a) Change Agents* (includes priests)	46
b) Teachers	59
c) University Students	41
d) Small Merchants	57
e) Workers	47
f) Artesans	145
g) Farmers	187
h) White Collar Employees	34
TOTAL	616
OVERALL TOTAL	3313

(4) Data gathering began in April, 1970 and was finished in September, 1970. A team of three Ecuadoreans - an economist from Guayaquil, an economist from Cuenca, and an administration specialist from Quito - supervised the interviewing process. They trained fifty interviewers from various regions of Ecuador and worked with them in teams. Each interview was revised after the day's work and errors were corrected. In some cases the interviewers had to rent mules and travel for hours or days into the interior.

(5) Coding began in May, 1970, with the first group of completed questionnaires. Card punching and verification started in September. All the data was on cards by early January, 1971, with range errors corrected. Frequency distributions and preliminary correlations were obtained with the help of a Peace Corps Volunteer who had experience in programming. An analysis deck was prepared and the attitude and behavior scales were constructed. Finally, due to the limitations of the 1401 computer that was available in Quito, the analysis deck was taken to Boston University and cross tabulations were run by program and occupation groups as well as overall.

---

* Individuals, such as extentionists, in jobs primarily devoted to inducing behavior change among the poor.

(6) The analysis presented in this report is confined to showing the utility and limitations of the indicators of individual growth that have been developed. Individual reports on each program are being prepared by the Ecuadorean research staff. Also, specific theoretical questions related to development can be analyzed. For example, a special run was made analyzing the correlates of attitudes toward family planning. The question was,

a) "Some say that it is necessary that a man and his wife limit the number of children they have."

b) "Others say that they ought to have the children that come." Which do you think is better, (a) or (b)?

In addition, analysis can be made of the effect of the personal characteristics of individuals such as age, sex, education, religion, income, occupation or of their experiences such as exposure to mass-media, occupational mobility, geographic mobility, or time lived in a city.

In sum, the strengths and weaknesses of the research methodology are:

Strengths

* Close collaboration with Ecuadoreans in the formulation of concepts and questionnaire items

* Extensive pretesting and revision

* Sampling of each program done with the help and cooperation of program managers

* Data collection supervised and accomplished by Ecuadoreans

* Coding errors less than 0.3% (less than one error per 360 entries)

* Virtually all range errors corrected

* All cards were verified (punched twice)

* Special programs for scale construction, involving weighting and summing were written

* Use of SPSS programs for cross tabulations

Weaknesses

* Many of the participants of the Motivational Training program could not be located for interviews

* Sampling of the participants within each randomly selected coop was not done on a random basis due to time and resources limitations, but was based on accessibility.

Before examining the concepts and indicators of attitudes and behavior related to development a brief sketch of the assumptions underlying the research project should be looked at.

Development as a Dynamic Concept

From an historical perspective, development became internationally salient at the close of the Second World War with the advent of the Marshall Plan. Then, development requirements were thought of largely in terms of scarce capital. Supply the needed capital and economic growth would occur. Massive grants, loans, and supplies were provided and economic growth did indeed occur, spectacularly. But when the development emphasis shifted to the non-industrial world, capital alone was found inadequate. Obviously what was also required was technological know-how. Technicians went abroad and nationals from under-developed nations were trained in industrial countries. Still economic growth rates were disappointing. What was lacking? Organizational skills.

Industrial societies function through myriad organizations such as corporations, governments, and grass-roots interest groups. Institution building became the watchword with programs in business administration, industrial institutes, public administration, public safety, income tax and customs administration, and for the people, cooperatives, community development, and education.

Up to this point the equation of development requirements evolved to include these three components - capital, technology, and organization building. The structure of most current development programs contains all three elements albeit with preponderant emphasis on one or the other of these factors. Evaluation of the results of these programs naturally tends to be heavily biased by the emphasis given to a particular element. Loan programs tend to be judged by repayment and the conversion of capital inputs into fixed capital, i.e. buildings, roads, machinery; technical transfer programs by the adoption of techniques such as use of fertilizers, tractors, machinery, or credit. Organization building programs stand on whether the organization survives and appears to offer some services such as giving courses to participants with little attempt to ascertain the value of these services.

Frustration and disappointment with the results of these programs has led to further searching and questioning. It appears that still another element must be included in the development equation. The precise form of such an additional element is not yet clear but the outlines are beginning to emerge. It centers around individual growth, individual changes in outlook and behavior. This means more than the acquisition of technological skills. It involves fundamental changes in an individual's capacity to deal with the rapidly changing technical and social patterns of his society or to play an instrumental role in fostering these changes where they are not yet occurring.

Two complementary rationales lie behind this search for a more dynamic development equation. On the one hand, through a deeper understanding of the learning process which has been accumulating over the past few years, it has become clear that more attention should be given to the individual's orientations, aspirations, interests, fears, and confidence. Information giving alone, by whatever means, is usually not adequate to assure lasting change in the individual. In other words, to increase the learning of new skills, the teaching process must be modified to pay more attention to the perspective of the learner. The learning must come from him; he cannot be made to learn, he can only be stimulated, encouraged, guided to information and resources.

This same lesson has been learned by many educators in the context of the education systems in the United States and in England. Learning, change, and growth are primarily functions of the orientation of the student, not of the paraphernalia of the classroom or of the knowledge of the teacher. The success of the teacher depends on how well he encourages the student to learn on his own, on how well he strengthens the growth orientations of his students.

The other rationale is broader, encompassing a view of development that includes humanistic as well as economic and technical factors. Development is increasing the capacity of individuals to guide and influence the direction of their own lives. This obviously includes greater material well-being, security, enlarged opportunities for individuals and their children, as well as profounder self-understanding and respect for others. This rationale increases the scope of the concept of development while the first rationale is based in improving the effectiveness of information and skill learning.

The resulting development equation would then be composed of four elements - Development= Capital + Technology + Organization + Individual Growth. This revised development equation, which is not new to many professionals in development, implies four significant modifications over earlier models. First, the concept of development necessarily includes more than economic dimensions. For

instance, an economically advanced authoritarian state would be seriously faulted on overall development due to the stultification of individual growth. This revised formulation of development also takes into account the possibility of a non-industrial society which has relatively low economic indicators of prosperity yet managed to avoid sharp social conflicts, wide disparities in economic or social levels and provides a variety of opportunities for its members. Economic criteria would not dominate our view of development; social and individual criteria would also be included.

A second implication of this revised development equation is that the element of individual growth serves as a catalyst toward the more effective utilization of the other three elements. By paying more attention to individual growth within an organization, the organization itself will function better and be more successful in attaining its goals. By paying more attention to the orientation of the learner, information transfer and skill acquisition rest on more solid ground, although not necessarily congruent with the preconceived goals of the teachers. By paying more attention to individual growth, use of capital ought to be more closely related to basic needs of the individual and therefore more wisely and responsibly employed.

Thirdly, individual growth adds the quality dimension to development which has so long been missing. Individual growth is an end in itself in addition to being a means for furthering economic well-being.

Finally, the inclusion of individual growth as co-equal with the other development factors requires increased stress on the process of development as well as the immediate results. For instance, since individual growth is often a slow process, development programs would have to be flexibly planned allowing for longer time spans than now are generally used. Specialists in individual growth, learning, attitude change and motivation would be essential members of a program team.

But in order to develop effective tools for promoting individual growth in development programs, a clearer idea is needed of what is meant by individual growth in the development context. The following behavior and attitude concepts and indicators attempt to provide some of this needed clarification.

I. DEVELOPMENT BEHAVIOR

The basic goal of all development programs is to induce changes in the behavior patterns of program participants or of a specific target group. Behavior is movement, action, observable events that an individual does. Behavior includes communications among individuals. Behavior is distinguished from mental sets, attitudes, values, or orientations which are not directly observable and which must be

inferred from responses to questions or other indicators. Four types of behavior patterns are postulated as being directly related to development - Organizational Participation, Use of Technology, Community Development Participation, and Growth Activities.

A. Organizational Participation

Learning organizational skills, that is, how to work together in formally constituted groups to accomplish common goals, is a prime behavioral objective for development. Individuals must learn new roles which are based on group expectations rather than on the traditional personal friendships which normally govern relationships. Trust in others must slowly be built. Common goals, in addition to individual goals, must be found. Skills at compromising have to be developed. More open communication flow in organizations should occur as leaders learn to listen to subordinates and eventually involve them in the decision-making process. Periodic evaluation of organization goals, organization methods, and effectiveness are necessary.

Our measures of the degree and the quality of an individual's participation in an organization do not include all these complex factors which should be of concern to development programs. Rather, our four measures are limited to some of the clearest manifestations of organizational participation. They are (1) organizational membership, (2) membership participation, (3) leadership roles, (4) attendance at meetings. Three of these indicators have been combined into an Organization Participation Index which best summarizes organizational behavior related to development. The Organization Participation Index will be explained first with data to show how different programs and occupation groups compare and then each individual indicator will be set forth.

Organization Participation Index*

Question	Responses	Code	Score	Index
Number of organizations respondent belongs to	3	6	12-14	High
	2	4		
	1	2	9-11	Hi-Middle
	0	0	6-8	Middle
Number of participation activities: (recruit members, speak in meetings, member of committee, member of delegation)	4	4	3-5	Low-Middle
	3	3		
	2	2	0-2	Low
	1	1		
	0	0		
Leadership role:				
President/manager	2	4		
Board of directors	1	2		
Neither	0	0		

The number of organizations belonged to has been given more weight than the other two factors of membership participation and leadership role. This is because the experience of functioning in various organizations, especially if combined with participation and leadership, would allow for a wider range of growth than if the individual limited himself to one group. Furthermore, it is desirable for those individuals with organizational skills to help others gain these abilities by working with them in other organizations.

* This and subsequent indices are constructed by first, assigning a Code to the responses to each question. Second, the code numbers for each question are summed to give a Score for the index. Third, the scores are transformed into Index categories. These categories are based on the overall distribution patterns that emerged from the total sample of 3313 respondents.

TABLE 1

ORGANIZATION PARTICIPATION INDEX BY

DEVELOPMENT PROGRAMS (%)

Organization Participation Index	Motivation Training	Credit Coops	Rice Coops	Agric. Coops	Small Loans	Coloni-zation	Adult Literacy
High	18.8	16.9	4.9	11.5	2.6	0.9	1.4
Hi-Middle	15.0	17.9	4.9	11.1	2.1	7.8	2.3
Middle	34.7	28.5	46.8	45.7	18.6	33.0	11.3
Lo-Middle	21.8	35.4	42.3	29.5	13.4	57.4	23.1
Low	9.7	1.3	1.1	2.1	63.4	0.9	62.0
TOTAL	100.0	100.0	100.0	100.9	100.1	100.0	100.1
NUMBER =	340	792	265	234	194	115	221

TABLE 2

ORGANIZATION PARTICIPATION INDEX BY

OCCUPATION GROUPS (%)

Organization Participation Index	Change Agents	Teachers	Univ. Students	Small Merchants	White Collar	Laborers	Artisans	Farmers	All
High	27.0	21.4	7.5	6.0	8.2	8.2	4.9	6.2	8.8
Hi-Middle	15.1	22.1	18.3	7.0	11.7	10.6	10.2	7.0	10.3
Middle	38.1	29.9	23.7	21.3	23.6	24.2	29.2	34.1	28.8
Lo-Middle	11.1	22.5	25.8	30.5	36.9	33.5	27.1	39.9	33.6
Low	8.7	4.1	24.7	35.2	19.5	23.4	28.5	12.8	18.4
TOTAL	100.0	100.0	100.0	100.0	100.0	99.9	99.9	100.0	99.9
NUMBER =	126	271	93	315	609	376	284	1199	3313

In comparing the development programs with the overall norm for the Organization Participation Index (the last column of Table 2) only three development programs show higher percentages than the norm for high and high-middle organization participants. Motivational Training and Credit Coops are outstanding with Agricultural Coops slightly above the norm. Rice Coops, a relatively new program, appears low on the Organization Participation Index because only 2.3% of the program's participants belong to three or more organizations.

To interpret this index with regard to a development program first compare the distribution in the development program with the overall norm or with appropriate occupation groups if the program is not occupationally heterogeneous. Is the program developing higher participation levels than the norm? Also comparison can be made with other similar programs on the same basis. In addition to comparisons, the distribution within the program should be studied to see if the lower level participants are moving up (small percentage in the low category).

Note, also, that the index has two levels at the high categories. This permits a more precise evaluation of program effectiveness in developing high participation rates. Programs where the leadership experience is kept within a small percentage of the participants will tend to have lower percentages at the top of the index. For example, the Motivation Training Program has a relatively high percentage (18.8%) of top participants, that is individuals who not only belong to 3 or more organizations but who also exercise leadership roles in these organizations. The Credit Coop program is also relatively high (16.9%) while the Agricultural Coops are slightly above the norm (11.5%) and the Rice Coops, being new, are below the norm.

Another aspect of the Organization Participation Index that deserves notice is that it clearly points out programs where organization development is totally lacking. For instance, the Small Loan program (Ecuadorean Development Foundation in Guayaquil) has no organization building goals and 63.4% of the program's participants have not had organizational experience. The same fact emerges from the Literacy Program in Cuenca, 62% of the participants are without organization experience. The assumption is that development programs which fail to encourage the growth of organization skills among their participants are neglecting a critical element of individual growth.

The Organization Participation Index, in addition to providing a tool for analyzing development programs, gives us some clues about the characteristics of individuals who are more likely to be involved in organizations.

(1) Size of Community. The most active individuals live in medium sized towns (2,000 to 20,000) and the least active live in rural areas of less than 2,000 inhabitants. This finding jibes with the practical experience of change agents who find that the isolation of distance in the rural area and the relative isolation through sheer size and suspicion in the larger cities are barriers to bringing people together to work on their common problems.

(2) Age. Individuals in their thirties tend to be the most active in organizations. Participation in organizations prior to reaching thirty develops slowly and begins to drop off after forty.

(3) Geographic Mobility. Individuals who have lived in 4 or more places have a stronger proclivity to participate in organizations than those who have lived in three or fewer places. There is a slight tendency for those who have moved once or twice to be less active in organizations than either the non-movers (lived in one place all their life) or the highly mobile individuals.

(4) Lived in a big city. The experience of having lived in a large city definitely influences individuals in their likelihood of participating in organizations. Even though residents of large cities are less likely to be active in organizations than those who live in small towns, the city experience seems to stimulate organization participation when they leave the city.

(5) Occupation. Change agents and teachers are by far the most active occupation groups. Farmers and small merchants are the least active in organizations.

(6) Education. Education affects organization participation in a predictible way, the more education the greater likelihood of active participation in formal organizations. For example, 20% of those with over 12 years of formal education (430 individuals) were in the top category of organization participation. Those with 7 to 12 years had 14% in the top group, and 4 to 6 and 1 to 3 had 7% and 3% respectively.

(7) Religion. Seven percent of the sample were avowedly not Catholic (N=243) and tended to be more active in organizations, but the difference is not striking.

(8) Family size. Individuals with four or more children tend to be more a ctive in organizations.

(9) Income. Family income is strongly related with organizational participation. Those earning over a thousand sucres per month are significantly more active than those with less monthly income.

S/1.00 ≈ US$ .04

US$1.00 = S/25.00

(10) Exposure to Mass Media. Individuals who regularly read newspapers or listen to the radio are much more likely to be active participants in organizations than those with less exposure to mass media.

Specific Indicators

(1) Organization Membership

DO YOU BELONG TO SOME ORGANIZATION, SUCH AS A SOCIAL CLUB, A SPORTS CLUB, A COOPERATIVE, A RELIGIOUS ORGANIZATION, A LABOR UNION, OR ANY OTHER GROUP?

YES NO

(If the answer is yes) WHAT ARE THE NAMES OF ALL ORGANIZATIONS YOU BELONG TO?

Table 3

ORGANIZATION MEMBERSHIP BY PROGRAM

No. of Organizations	Credit Coops	Rice Coops	Agricultural Coops
	%	%	%
3 or more	20.7	2.3	9.4
2	34.7	11.3	21.4
1	43.4	85.7	67.5
0	1.1	0.4	1.3
N=	792	265	234

The importance of membership in organizations is stressed because of the need for individuals to learn to work together to accomplish common goals. Membership in more than one organization indicates greater opportunity to learn organizational skills and greater confidence in the effectiveness of combined effort. The data in Table 3 give a clear picture of where the participants in the three coop programs are along this dimension. The participants of the Credit Coop program are much more advanced in their organizational activity than the other two coop programs. Yet this does not represent the complete picture as can be seen from the other indicators.

(2) Attendance at meetings

DO YOU ATTEND THE MEETINGS OF YOUR ORGANIZATIONS REGULARLY OR NOW AND THEN?

Table 4

MEETING ATTENDANCE BY PROGRAM

Attendance	Credit Coops	Rice Coops	Agriculture Coops
	%	%	%
Regular	63.1	88.3	85.9
Now and Then	33.5	10.6	9.0
No Answer	3.4	1.1	0.4
N=	792	265	234

Attendance at meetings is a simple indicator of the relevance of the organization for the participants and of the degree to which the organization has an opportunity to help the growth of its members. This indicator correlates very well with organization membership (.44). Note that the Rice Coop program whose participant generally do not belong to other organizations than the rice coop, have a much higher attendance rate than the Credit Coop program. This may indicate that the Credit Coops lack some vitality and are not offering enough stimulation for their members.

3. Organization Participation

HOW HAVE YOU PARTICIPATED IN THE ORGANIZATIONS WHICH YOU HAVE BELONGED TO?

BY PRESENTING YOUR IDEAS IN THE MEETINGS

BY RECRUITING NEW MEMBERS

BY BEING A MEMBER OF A DELEGATION TO ASK FOR ASSISTANCE

BY BEING A MEMBER OF A COMMITTEE

Table 5

ORGANIZATION PARTICIPATION BY PROGRAMS

No. of Activities	Credit Coops	Rice Coops	Agricultural Coops
	%	%	%
4	13.4	30.6	13.7
3	20.8	31.3	26.9
2	23.7	18.9	27.4
1	23.9	15.8	23.9
0	18.1	3.0	7.3
N=	792	265	234

The organization participation indicator is based on the number of membership activities an individual has experienced. Again we find the Credit Coop program significantly lower than the Rice program with a surprising percentage of participants (41%) participating in one or in no membership activities. The Agricultural Coop program is also low in participant activity level. This indicator correlates well with both organizational membership (.36) and the organizational leadership indicator (.56).

4. Organization Leadership

HOW HAVE YOU PARTICIPATED IN THE ORGANIZATIONS WHICH YOU HAVE BELONGED TO?

BY BEING A MEMBER OF THE BOARD OF DIRECTORS

BY BEING THE MANAGER OR THE PRESIDENT

Table 6

ORGANIZATION LEADERSHIP BY PROGRAM

Organization Role	Credit Coops	Rice Coops	Agricultural Coops
	%	%	%
President/ Manager	22.1	16.2	25.6
Board	28.2	37.4	39.3
Neither	49.7	46.4	35.1
N=	792	265	234

The organizational leadership indicator provides a measure of the sharing of leadership roles within a program. The Agricultural Coop program is composed of coops of long standing and has only 35% of its participants who have not experienced a leadership role. The Rice Coop program is slightly over two years old and 54% of its participants have exercised leadership roles. The Credit Coop program with over eight years of existence appears to be more limited in sharing this experience among participants. Organization leadership correlates with organization membership (.38) and with organization participation (.56).

Summary of Organization Participation Variable

Participation in formal organizations is postulated as a critical element of individual growth which is needed to further the development process. Four behavioral indicators have been developed and tested which measure the extent the participants in a development program participate in formal organizations. Three of these indicators have been combined into an Organization Participation Index. Norms have been established based on samples of development programs and comparisons are available with various occupation groups. Of the three development programs looked at in relation to Organization Participation, the Rice Coops programs appears to provide the most dynamic organizational experience for its participants but very few of the participants belong to more than one organization. The Credit Coop program, on the other hand, includes participants who have broader organizational experience but are less active in the credit coops and would therefore have less opportunity to develop their organizational skills. The Agricultural Coop program falls between these two positions, being slightly more dynamic than the Credit Coops but having more participants with organizational experience.

B. Use of Technology

Use of Technology is the second behavioral concept suggested as being vital to individual growth in the development context. Improved technological practices in the work of the individual is an essential step for greater production and more efficient use of resources which would directly benefit the individual or the production unit. But the situation is often complicated by factors such as (a) Does the individual have the resources to invest in modern equipment or supplies? (b) Does the market pay a premium for higher quality products? (c) Is demand for his product inelastic? (d) Is the individual ready to accept the responsibility of machinery maintenance or of the careful planning often required by more advanced technology? The point raised by these complications is that improved technological usage may be a relative blessing depending on the individual's circumstances.

Therefore the concept of Use of Technology as a dimension of individual growth must be relative, not absolute. New methods for some would be common practice for others. The important factor is whether the individual is beginning to experiment with some new methods or is still content with traditional ways of working. Once the individual starts questionning the immutability of his present practices then he is more likely to be receptive to new ideas, to actively seek help, and to learn to adapt proffered technology to his own reality.

Three indicators of the Use of Technology have been tested - Use of New Methods in Work, Source of Information, and Use of Credit. The first two indicators correlate strongly with each other (.575) and have been combined into a Technological Index.

The Technological Index approaches change from the perspective of the individual. Is he doing something new in his work and is he likely to continue to be exposed to ideas for change from sources outside his immediate environment? This Index will be explained first followed by presentation of the three individual indicators.

Technological Index

Question	Code	Score	Index
What are the new techniques or methods that you use in your work?		7	High
2 or more new methods	5		
1 new method	3	5-6	Medium
none	0	3-4	Low
		0-2	Not using new methods

Question	Code	Score	Index
Where did you learn about these new methods that you use in your work?			
Outside source (extensionist, teachers, books, radio, etc.)	2		
Own idea, trips, other work	1		
Friends, family neighbors	0		

In Tables 7 and 8, Technological Index by Development Program and by Occupation Groups, we gain some insight into how the process of introducing technological change works. In the programs that do not emphasize improved technology (Colonization, Small Loans, Literacy, and Credit Coops) there appears a slow, cautious increase in percentages of participants who are trying new methods. But in the three programs that stress new methods (interpersonal relations skills, agricultural improvements) there is a sharp break between the participants who are using two or more new methods and are connected without outside information sources and the less adventurous participants. The question is why the cleavage? At what point does an individual decide to take the risks involved in experimentation and how can this step be facilitated. Extensionists and trainers should become more aware of the fears of their participants and attempt to assuage them rather than depending on the mere presentation of information and the teaching of skills alone. Among the occupation groups only those with higher education levels seem to have overcome this basic resistance to trying new techniques.

The Technological Index also indicates the extent of the problem of encouraging adoption of new techniques among various occupation groups and in development programs. Laborers and Artesans appear to be slowly, but steadily moving toward technological change. Farmers are slow to risk except in the few cases where extentionists manage to help them overcome their inhibitions toward change. Small merchants seem to be very reluctant to try new methods. As for white collar workers, it may be questioned whether the concept of new methods on the job is as meaningful to them as it is for other occupations. Change agents and teachers are high in their openness to change in work techniques.

It should be noted that the Technological Index is a measure of propensity to change work techniques and should be supplemented by more specific measures of technological practices for each program, taking into account the prevailing practices in the area.

TABLE 7

TECHNOLOGICAL INDEX BY DEVELOPMENT PROGRAMS (%)

Technological Index	Motivation Training	Credit Coops	Rice Coops	Agricultural Coops	Small Loans	Colonization	Adult Literacy
High	40.0	14.6	26.8	32.1	5.2	0.9	17.2
Medium	17.9	24.2	4.9	8.1	10.3	5.2	21.3
Low	14.1	23.4	30.2	28.6	41.2	73.0	24.0
Not Using New Methods	27.9	37.8	38.1	31.2	43.3	20.9	37.6
TOTAL	99.9	100.0	100.0	100.0	100.0	100.0	100.1
NUMBER =	340	792	265	234	194	115	221

TABLE 8

TECHNOLOGICAL INDEX BY OCCUPATION GROUPS (%)

Technological Index	Change Agents	Teachers	Univ. Students	Small Merchants	White Collar	Laborers	Artesans	Farmers	All
High	51.6	41.7	23.7	2.5	12.0	10.1	12.3	17.7	17.1
Medium	23.8	45.0	14.0	4.8	16.3	20.2	22.2	5.5	14.7
Low	8.7	4.8	9.7	38.1	16.1	23.4	29.2	35.3	25.6
Not Using New Methods	15.9	8.5	52.7	54.6	55.7	46.3	36.3	41.5	42.6
TOTAL	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	100.0
NUMBER =	126	271	93	315	609	376	284	1199	3313

Specific Indicators

(1) Use of new techniques in work

WHAT ARE THE NEW TECHNIQUES OR METHODS THAT YOU USE IN YOUR WORK?

Table 9

NEW TECHNIQUES USED BY PROGRAM

No. of New Techniques	Motivation Training %	Credit Coops %	Rice Coops %	Agricultural Coops %
2 or more	47.1	22.0	44.5	52.5
1	25.0	40.4	17.4	16.2
None	28.0	37.8	38.1	31.2
N=	340	792	265	234

A strong program in inducing the use of new techniques in work is the Motivation Training program. This suggests that focusing on the attitudes and psychological aspects of individuals may be more fruitful in bringing about improved technology than by stressing the techniques themselves. Ideally, of course, both approaches should be combined, providing information and technical help when needed but at the same time helping the individual understand the risks involved and how he can minimize them. The Agricultural Coops are also strong in fostering new technology which reflects the years of labor in the area by extentionists and the high literacy rate of participants (73% with four or more years of formal schooling). On the other hand the Rice Coops are amazingly effective in raising the technological level of participants who have low education levels (33.35 with more than four years and 29.1% with no formal schooling at all). It is the Credit Coop program that is disappointing with participants who are almost all literate (91.6% with more than four years education).

(2) Source of Information

WHERE DID YOU LEARN ABOUT THESE NEW METHODS THAT YOU USE IN YOUR WORK?

Table 10

SOURCE OF INFORMATION BY PROGRAM

Source of Information	Motivation Training	Credit Coops	Rice Coops	Agricultural Coops
Ourside Sources:	%	%	%	%
Books, magazines, radio, T.V, pamphlets	14.7	9.0	1.5	8.5
Course or technicians	23.8	15.2	32.1	29.1
School teachers	24.1	22.3	1.5	7.7
Own Initiative: (travel, other work, own idea)	10.9	20.1	10.6	12.8
Community contacts: (friends, family, neighbors)	15.3	16.5	26.4	26.1
No response	11.2	16.9	27.9	15.8

NOTE: There is a bias in this data because this question was asked of some who stated that they did not employ new methods. Nonetheless it is instructive to view the source of information relied upon by the respondents.

The data in Table 10 clearly demonstrates the importance of outside inputs in the process of upgrading technical usage. The Rice Coop program most dramatically shows the influence of the extentionist.

The Agricultural Coop program also has been heavily influenced by the outside technician but, in addition, school teachers and written material have played a role. The influence of the Credit Coop program on stimulating new methods of work appears significantly less, although 20% of the participants have been stimulated to use new methods on their own initiative.

It would not be unreasonable to expect the Motivation Training program to spur participants to seek better work methods on their own initiative yet the data does not reveal much success in this regard. Only 11% of the participants of the Motivation Training program used their own initiative compared with virtually the same percentages in the two agricultural coop programs. It is interesting to note the low rate of technological diffusion through community contacts. In rural areas (the coop programs) about 26% learned of new methods from friends and neighbors while being participants in coop programs. Therefore an expected multiplier effect for the community members in general, who did not belong to coops, would undoubtedly be lower. Notice also the role of school teachers, except in the Rice Coop program where few participants are literate. This would suggest that development programs would be well-advised to involve the local teachers as much as possible in their effects to transmit information, especially of a technical nature.

(3) Use of Credit

HAVE YOU USED CREDIT FROM A COOPERATIVE OR A BANK? Yes No

(If Yes) FOR WHAT PURPOSE?

Table 11

USE OF CREDIT BY PROGRAM

Use of Credit	Motivation Training %	Credit Coops %	Rice Coops %	Agricultural Coops %
Yes - Production	22.6	37.3	42.3	31.2
Yes - Consumption	23.8	36.1	0.0	6.8
No	52.4	25.8	57.7	60.3
No response	1.2	0.7	.0.0	1.7

The credit indicator does not correlate with the other two indicators because of the low use of credit by program participants in general. Credit use, however, is included as an important factor in technological advancement because credit is so closely related to the purchase of new machinery and supplies. The Credit Coop program, as expected, has a high percentage of participants who have used credit (73%) yet the data shows that half of the respondents use credit for consumption rather than for production purposes. In contrast, the Rice Coop program is even stronger in the use of production credit than the Credit program.

Let us now look briefly at the characteristics of individuals who are more likely to use new techniques in their work.

(1) Size of community. Small town residents (2,000 - 20,000) show a decided tendency to use new techniques compared to city and country residents. People living in rural areas are least likely to be using new methods in their work.

(2) Age. Age has little effect on the use of new methods in work up to fifty when a drop-off begins to emerge. The younger group (25 to 34) are very slightly more likely to be using new techniques.

(3) Geographic mobility. The experience of having lived in different places does not seem to influence the Use of Technology.

(4) Lived in a big city. Unlike the Organization Participation Index, Use of Technology is not influenced by the city experience.

(5) Education Education has a strong effect on the Use of Technology with a steady increase in use of new methods as formal education levels rise. In fact the rate of increase in the use of new methods almost doubles with each significant education level. From no education to 1 - 3 years the increase is 6%; from 1 - 3 to 4 - 6 the rate of increase is 10%; from completed primary to secondary a 17% rate of increase; and from secondary to university the gap is 23%.

(6) Religion. No difference is manifested between Catholics and non-Catholics in Use of Technology.

(7) Family Size. Family size has no noticeable relationship to Use of Technology.

(8) Income. Family income relates strongly to the Use of Technology with accelerating use of new methods as income increases. Resistance to new methods is clearly evident at income levels of 500 sucres per month or less. With incomes over 500 sucres this apparent block to try new techniques weakens.

(9) Exposure to Mass Media. Attention to mass media relates strongly to adoption of new techniques. For instance, 48% with high exposure to mass media are in the top two Use of Technology categories while only 15% of the low exposure groups are in this category.

Summary of Use of Technology variable

Use of technology is proffered as a necessary ingredient of development if the individual is to attain economic security in a competitive situation. But to adopt new methods many individuals, especially at the lower socio-economic levels, seem to need to overcome serious fears about risk-taking. Therefore the technician should be as concerned with these psychological barriers when working with these individuals as he is with the technical aspects of his job. However, with better educated individuals who have higher incomes a straight technical role appears adequate.

C. Community Development Participation

An important element of individual growth related to development is an active concern for the welfare of all member of the community. Individuals who concentrate on material aggrandizement or on private ambitions for influence, power, and prestige without regard to the conditions of others accentuate class hatreds. Lack of community consciousness fosters continued exploitation of the underprivileged and retards development. On the other hand, concern for the welfare of others as expressed by participation in community development projects not only leads to immediate tangible benefits for members of the community but also develops leadership skills, provides experience in collaborative work, and builds confidence that changes can be brought through one's own effort.

The inclusion of community development participation as one of the behavioral aspects of individual growth which ought to be a concern of development programs would require an expansion of objectives for some programs. It would require programs which are individually oriented (agricultural extension) or which concentrate on organization building (coops) to try to use what leverage they have to encourage their participants to think of community interests as well as their own. The addition of community development dimensions to development programs would serve three ends. (1) It would increase a sense of community responsibility and begin to build "social consciousness" among participants. (2) It would extend the effect of the specific program, whether information transfer, cooperative organization or motivation training program, by increasing contact between participants and community members. (3) Participation in community projects by members of a program would also help to publicize the program and gain acceptance for it through its "good works".

Our measure of Participation in Community Projects is based on two indicators - the number of projects worked on and the quality of participation in the projects. These individual indicators, which have a correlation of .437, have been combined into one index.

Participation in Community Projects Index

Question	Code	Score	Index
What projects to improve the community have you participated in?		4	High
Three or more	2		
One or two	1	3	Medium High
None	0	2	Medium
		0-1	Low

Question	Code	Score	Index
How have you participated in these projects?			
With labor, materials, or money			
With planning, organizing, or obtaining outside help			
Both types of participation	2		
Only one type of participation	1		
Neither type of participation	0		

Since few development programs have participation in community projects as an objective, they should not be evaluated harshly on this criterion. Nonetheless, it is instructive to view the degree to which participants in various programs express a social consciousness through community activities. In Table 12 we see that the Agricultural Coop participants are remarkably high in participation in community projects.

The Colonization program of CREA, which does stress community effort, appears to be very successful in engendering a high level of community effort among the colonists. The Motivation Training program also has many participants who are active in community projects. One notes an unusual discontinuity with the Rice Coop program which seems to be split into two groups, moderately active participants and very passive participants. In general it appears that programs that organize in coops have distinctly higher proportions of their participants who are active in community projects than non-organizational development programs (Small Loans and Adult Literacy). This apparent side effect of organization building programs should not go unnoticed.

Among occupation groups (Table 13), except for change agents, teachers and farmers, the tendency to participate in community projects is uniformly low. Change agents are almost by definition promoters and active participants. Teachers, in spite of low pay and poor working conditions, emerge as natural leaders and organizers of community projects. This fact suggests the value of close cooperation with the local teachers for community based development projects. Although small farmers are reluctant to try new work methods, they appear relatively open to work together on community projects. It might be more effective to introduce new techniques in the context of such projects than by working individually with each farmer.

TABLE 12

PARTICIPATION IN COMMUNITY PROJECTS BY DEVELOPMENT PROGRAMS (%)

Participation in Community Project Index	Motivation Training	Credit Coops	Rice Coops	Agricultural Coops	Small Loans	Coloni-zation	Adult Literacy
High	22.1	13.3	6.0	36.3	2.1	18.3	5.9
Medium-High	35.3	26.1	41.5	28.2	15.5	49.6	25.3
Medium	24.1	23.9	9.8	23.9	23.7	32.2	33.9
Low	18.5	36.7	42.6	11.5	58.8	0.0	34.8
TOTAL	100.0	100.0	91.9	99.9	101.1	101.1	99.9
NUMBER =	340	792	265	234	194	115	991

TABLE 13

PARTICIPATION IN COMMUNITY PROJECTS BY OCCUPATION GROUPS (%)

Participation in Community Project Index	Change Agents	Teachers	Univ. Students	Small Merchants	White Collar	Laborers	Artesans	Farmers	All
High	31.7	26.6	8.6	6.3	6.2	7.2	6.0	19.2	13.8
Medium-High	34.1	30.6	26.9	21.0	25.8	23.9	27.1	34.1	29.0
Medium	23.8	29.5	19.4	26.3	27.1	24.5	23.9	27.5	26.6
Low	10.3	13.3	45.2	46.3	40.9	44.4	43.0	19.2	30.7
TOTAL	99.9	100.0	100.1	99.9	100.0	100.0	100.0	100.0	100.1
NUMBER =	126	271	93	315	609	376	284	119.9	3313

The Participation in Community Projects Index provides a measure of a side effect of some programs that is important for development, namely, the growth of a sense of community identification and responsibility and experience in group work. Individuals who are more likely to participate in community projects have the following characteristics.

(1) Size of community. Individuals who live in small towns (2,000 to 20,000) and in rural areas are more. likely to be active in community projects than city dwellers who are significantly less likely to be community oriented.

(2) Age. Age has a neglible effect on participation in community projects.

(3) Geographic Mobility. There is a clear relationship between geographic mobility and tendency to participate in community projects. The more places an individual has lived, the more active he is likely to be.

(4) Lived in a Big City. In contrast to the propensity of those who have lived in a large city to be active in organizations, individuals who have lived in a big city are less likely to participate in community projects. Perhaps community ties are attenuated by having lived in a city and result in a lessened interest in long term improvements in the community.

(5) Education. Participation in Community Projects is the only behavioral variable that is not strongly related to formal education. There is virtually no relationship between education levels and participation in community projects. Community projects might thus serve as a powerful learning environment that isn't structured by formal education. In other words, individuals do not need formal education to take active roles in their community and could therefore be encourgged to develop groups skills, to become more receptive to new ideas, and to learn skills that do not depend on education level.

(6) Religion Being Catholic, Protestant, or non-believers makes no difference in regard to participation in community projects.

(7) Family Size There is a slight tendency for those with larger families to be more active in community projects.

(8) Income. Family income has absolutely no relationship to Participation in Community Projects. Perhaps this lack of relationship can be explained as a reflection of the low interest that wealthier individuals have in the community as a whole. If the higher income groups perceived direct benefit from participation in community projects, then they would tend to be more active as they are in organizations. But if, as is probably the case,

these higher income groups participate only perfunctorily as figureheads, then, as the data shows, they would not be any more likely to be involved than any other economic level in the community.

(9) Exposure to Mass Media Mass media exposure is not related to Participation in Community Projects.

Specific Indicators

(1) Number of Projects

HAVE YOU PARTICIPATED IN ANY PROJECTS FOR THE IMPROVEMENT OF YOUR COMMUNITY, SUCH AS SCHOOLS, ROADS ORGANIZATIONS? OR OTHERS?

Yes No (If yes) WHAT PROJECTS?

Table 14

NUMBER OF PROJECTS BY PROGRAM

Number of Projects	Motivation Training %	Credit Coops %	Rice Coops %	Agricultural Coops %
Three or more	37.4	19.4	7.2	43.6
One or Two	45.0	44.5	51.3	45.3
None	17.7	36.2	41.5	11.1
N =	340	792	265	234

This is a quantitative indicator of social or community consciousness. The agricultural Coop participants and the Motivation Training participants are much more active than the participants of the Credit and Rice Coop programs. Perhaps this is due to the fact that the Rice program and the Credit program are more limited in their goals than are the other two programs, concentrating on savings and loans or on rice production. The other two programs, on the other hand, may be more flexible in encouraging discussions of wider ranges of problems which may lead to greater participation in community projects.

(2) Participation in community projects

GENERALLY HOW HAVE YOU PARTICIPATED IN THESE COMMUNITY PROJECTS?

WITH MONEY OR MATERIALS
WITH MANUAL LABOR
WITH PLANNING AND ORGANIZATION
BY OBTAINING HELP OF OTHERS? OR MONEY AND MATERIALS FROM OUTSIDE THE COMMUNITY

Table 15

NONLEADERSHIP PARTICIPATION IN COMMUNITY PROJECTS BY PROGRAM

Type of Participation	Motivation Training %	Credit Coops %	Rice Coops %	Agricultural Coops %
Both materials and labor	24.4	20.7	35.1	50.9
Either materials or labor	32.4	27.8	20.4	31.6
Neither	43.3	51.5	44.5	17.5
N=	340	792	265	234

Type of participation has been subdivided into non-leadership and leadership roles. Table 15 displays the level of non-leadership participation in four development programs. The Agricultural Coop program demonstrates very high level of basic involvement by participants. The Rice program, which had limited participation by quantity is stronger when it comes to non-leadership participation, yet almost half of the participants of the program have not been active in community projects.

Table 16

LEADERSHIP PARTICIPATION IN COMMUNITY PROJECTS BY PROGRAM

Type of Participation	Motivatio Training %	Credit Coops %	Rice Coops %	Agricultural Coops %
Both planning and obtaining help	38.8	24.4	28.3	37.2
Either planning or obtaining help	28.8	25.0	20.8	27.4
Neither	32.4	51.5	50.9	35.5
N=	340	792	265	234

Participants in the Motivation Training program tend to be drawn from the leadership elements of communities and organizations and therefore would be expected to score well on leadership aspects of participation in community projects. What is remarkable is that the Agricultural Coop program is equally strong in this area. The Credit Coop program has not shown much spark in the area of community projects on any of the indicators. The Rice Coop program appears to be in the process of change with low leadership participation but stronger non-leadership participation. This is encouraging since of the four programs listed here the Rice program has the largest proportion of inactive participants.

Summary of the Participation in Community Projects variable

Participation in community projects is offered as an important behavioral variable related to development, even though it is not usually included as a development program objective, because (1) tangible results accrue to the community through such projects, (2) social consciousness of program participants can be strengthened, (3) skills in leadership and cooperation grow out of the community working together, (4) the efficacy of self-help is demonstrated, (5) links with outside sources of assistance can be made by the community itself, and (6) status based on income or education is not a barrier to participation by the poorer and less educated members of the community.

The implication of including this variable in development analysis is that programs ought to encourage and even sponsor community oriented projects. Participation of local teachers should also be encouraged.

D. Growth Activities

In addition to the three behavioral aspects of individual growth related to development already set forth (Organization Participation, Use of Technology, and Participation in Community Projects), there are many individual experiences which can be considered growth activities. These activities are self-motivated and expose the individual to influences outside his normal life pattern. Travel is a good example. Travel out of curiosity, to find work, or to attend a market or fiesta in another province certainly exposes the individual to differences and other ways of behavior which may stretch his own outlook. Voting in local or national elections is another example of purposive contact with the outside world which might lead to increased dissatisfaction with present conditions or in other ways stimulate change. Attending courses or helping to found an organization are other growth activities which relate, a priori, to development. Listening to the radio, seeing movies, watching television, or reading newspapers and magazines are activities which obviously tend to broaden the vistas of an individual. The experience of living in a large urban area can be included as a growth activity which exposes an individual to change in its most dynamic, stimulating, and confusing form.

Growth activities are promoted by some development programs through their courses, literature, local, provincial, and national conferences, foreign travel for training, films, and other activities which inject new experiences into the lives of their participants.

Nonetheless much could be done to expand these activities such as weekly or monthly newspapers concerned with doings of the program, more travel for informal exchanges of ideas and discussions of problems with other groups, and movies and visitors in subject areas outside the direct concerns of the program.

The indicators for growth activities are designed to capture the extent the participants of a program are actively involved in the outside world. Five individual indicators have been combined into one index, the Activism Index, and three other indicators dealing with mass media contact have been combined into a Mass Media Index.

Activism Index

Question	Code	Score	Index
What is the longest trip you have made in your life?		5	High
Foreign travel	1	4	Medium High
Other	0	3	Medium
Have you been to markets or fiestas in other provinces?			
Yes	1	2	Medium low
No	0	1	Low
		0	
Have you voted in municipal or national elections?			
Yes	1		
No	0		
Have you attended any courses to increase your knowledge or skills?			
Yes			
No	0		
Have you helped to found any organization?			
Yes	1		
No	0		

TABLE 17

ACTIVISM INDEX BY DEVELOPMENT PROGRAMS (%)

Activism Index	Motivation Training	Credit Coops	Rice Coops	Agricultural Coops	Small Loans	Coloni-zation	Adult Literacy
High	34.1	18.2	1.5	6.0	2.1	0.9	1.4
Medium-High	34.4	26.5	10.2	25.2	16.0	11.3	10.4
Medium	16.8	26.4	28.3	31.6	27.8	31.3	21.3
Medium Low	11.5	21.3	28.3	26.1	26.3	36.5	29.9
Low	3.3	7.6	31.7	11.2	27.9	20.0	37.1
TOTAL	100.1	100.0	100.0	100.1	100.1	100.0	100.1
NUMBER =	340	792	265	234	194	115	221

ACTIVISM INDEX BY OCCUPATION GROUPS (%)

Activism Index	Change Agents	Teachers	Univ. Students	Small Merchants	White Collar	Laborers	Artesans	Farmers	All
High	44.4	36.2	17.2	5.7	16.3	8.5	5.3	2.7	11.1
Medium-High	41.3	41.3	29.0	16.8	17.1	21.0	18.7	14.5	19.9
Medium	8.7	17.7	21.5	31.7	21.8	25.0	26.8	27.4	24.7
Medium-Low	3.2	4.4	17.2	28.6	24.0	25.3	29.6	29.4	24.4
Low	2.4	0.4	15.2	17.1	20.9	20.2	19.7	26.0	19.9
TOTAL	100.1	100.0	100.1	99.9	100.1	100.0	100.1	100.0	100.0
NUMBER =	126	8.2	93	315	609	376	284	1199	3313

The Activism Index in Table 17 shows a sharp difference among development programs with the Motivation Training program having very high proportions of active participants (68% in the top two categories) followed by the Credit Coop program (44% in the top two categories). The Adult Literacy program, the Rice Coops, the CREA colonization program, and the Small Loan program in Guayaquil have over 50% of their participants in the bottom two categories of activism. Care must be taken, however, in interpreting this index because one of the indicators (foreign travel) is influenced by economic level. Comparisons are best made among similar socio-economic groups.

The middle class occupations (see Table 18) are all significantly higher on the Activism Index than the lower class occupations. Change agents and teachers are outstanding followed by university students and white collar employees. Among the lower class occupations, laborers are the most active (29% in the top two Activism categories) followed by small merchants and artesans (22% and 24% in the top two categories respectively) and anchored at the bottom by the farmers with 17% in the top two categories. The enormous range among different occupations and programs gives us some idea of the magnitude of the problem of expanding the perspectives of the lower socio-economic groups.

For a clearer understanding of the nature of this problem let us look at some personal characteristics of the individual who is most likely to be experiencing growth activities.

(1) Size of Community. Living in either large cities or towns has a positive influence on activism. The rural environment is clearly a depressant on activism.

(2) Age The age group from 25 to 39 is the most active, especially the 30 to 34 group.

(4) Geographic Mobility. Only a high degree of geographic mobility effects activism, those who have lived in four or more different places. These mobile individuals are significantly more active than the rest.

(4) Lived in a big city. The city experience has a decidedly positive effect on activism.

(5) Education. Formal education has a powerful effect on activism. Individuals with more than 6 years of formal education are twice as likely to experience growth activities compared to those with six or less years of schooling.

(6) Religion. Non-Catholics show a slight, but consistent tendency to be more active than professed Catholics.

(7) Family Size There is absolutely no relationship between family size and activism.

(8) Income Income is another powerful indicator of Activism. There is a sharp break between those with a monthly family income of S/1,000 or more and those with less. In the S/1,000 to S/3,000 group, 49% are in the top two activism categories and 72% of those with over S/3,000 are in this top group. Only 20% of the S/500 to S/1,000 are very active while below S/500 the proportion of activists drops to 12%.

(9) Exposure to Mass Media. Since exposure to mass media is another indicator of activism the strong relationship between this measure and activism could be expected. Individuals who read newspapers regularly, attend movies, and watch TV are much more likely to experience growth activities than those who rarely or sporadically have contact with the mass media.

Specific Indicators

(1) Longest trip

WHAT IS THE LONGEST TRIP YOU HAVE MADE IN YOUR LIFE?

Table 19

LONGEST TRIP BY DEVELOPMENT PROGRAMS

	Motivation Training %	Credit Coops %	Rice Coops %	Agricultural Coops %
Foreign, except Peru or Colombia	28.8	12.6	0.4	1.7
Peru or Colombia	20.3	28.5	1.9	17.9
Only Ecuador	50.9	58.9	97.7	80.4
N=	340	792	265	234

This indicator vividly shows the gap in experiences among different groups and especially, the lack of exposure of the rural farmers. Even among the two farm coop groups there is a notable difference. For instance, two-thirds of the participants in the Rice Coops (66.8%) have never been to the sierra of Ecuador compared to 41% of the Agricultural Coop participants who have never been out of the mountains.* This provincialism is likely

* This question was coded not only by foreign-domestic travel but also by travel among regions and provinces of Ecuador.

to reinforce the suspicion and reluctance of these farmers to try new technology or to enter into cooperatives for mutual self-help. Programs which are faced with participants with this low level of outside experience might well consider planning visits to other regions to try to create more openness to change.

(2) Trips to other Provinces

HAVE YOU GONE TO MARKETS OR FIESTAS IN OTHER PROVINCES?

NEVER A FEW TIMES EVERY YEAR OR MORE

Table 20

TRAVEL TO OTHER PROVINCES BY DEVELOPMENT PROGRAM

Frequency of Travel	Motivation Training %	Credit Coops %	Rice Coops %	Agricultural Coops %
Every year	19.7	17.4	12.8	16.7
Few times	65.9	60.1	40.4	49.6
Never	14.4	22.6	46.8	38.8
N=	240	792	265	234

This indicator is designed more for applicability to farmers or other rural inhabitants than middle class urban people. Note that almost half the participants in the Rice program have never gone outside their province for a market or a fair in other provinces. This indicator would be an effective measure of the provincialism of participants and would give program managers a possible way of introducing new ideas to their participants. Program objectives generally do not include the inducement of travel for their participants, yet travel may be one of the easiest and most effective ways to stimulate the desire to change.

(3) Voting

HAVE YOU VOTED IN NATIONAL OR MUNICIPAL ELECTIONS?

YES NO

Table 21

VOTING BY DEVELOPMENT PROGRAM

Vote	Motivation Training %	Credit Coops %	Rice Coops %	Agricultural Coops %
Yes	81.7	93.8	61.6	82.0
No	18.3	6.2	38.4	18.0
N=	340	792	265	234

Almost all participants who have voted have voted in both national and in municipal elections. It is interesting to note that in all programs there is a higher percentage of those who have voted than those who have four or more years of formal education. It is uncertain as to whether these figures are inflated due to social response bias or whether the large non-voting population live too far out in the rural zones for inclusion in development programs. At any rate, except for the Rice program, the percentage of participants who have voted is extremely high.

(4) Course attendance

HAVE YOU ATTENDED ANY COURSE TO INCREASE YOUR KNOWLEDGE OR SKILLS?

YES NO (if yes) WHICH ONES?

Table 22

COURSE ATTENDANCE AND DEVELOPMENT PROGRAMS

No. of Attended Courses	Motivation Training %	Credit Coops %	Rice Coops %	Agricultural Coops %
2 or more	51.7	22.6	3.0	11.1
One	40.0	31.9	24.6	39.3
None	8.3	45.5	72.5	49.6
N=	340	792	265	234

Attendance at courses not only gives a strong indication of growth activities of the participants but also indicates the degree of contact the program has with its participants. In the Motivation Training program about 50% of the participants (including those who respond erroneously as not having attended any courses) attended only one course. Considering the high percentages of this program's participants in the top categories of the other behavioral indicators, it could be inferred that motivation training, even with only one course, has a significant impact on the development behavior of individuals. Of course, the fact that slightly over half of the participants have had two or more courses would also indicate that the Motivation Training program includes as participants the most developmentally oriented individuals.

It is also significant to note the large proportions of participants in other programs who have not, according to their responses, attended any courses. Perhaps this could be explained if programs, instead of holding formal courses, contacted their participants on an individual basis thereby obviating the necessity of giving courses. But the limited staffs of each program suggests that this is not the case and that, in general, far too many of their participants are not reached, either individually or through courses.

(5) Help found an organization

HAVE YOU HELPED TO FOUND AN ORGANIZATION? YES NO
(If yes) WHICH ONE?

Table 23

HELPED FOUND AN ORGANIZATION BY DEVELOPMENT PROGRAMS

Founded an Organization	Motivation Training %	Credit Coops %	Rice Coops %	Agricultural Coops %
Yes	71.7	57.5	67.5	68.3
No	28.3	42.5	32.5	31.7
N=	340	792	265	234

The high percentages of participants who say that they have helped to start an organization is surprising. Yet most of the respondents named the organization they helped to found. The high percentage of founders in the Rice Coop program is understandable because of the newness of these coops. The equally

high percentage of founders in the Agricultural Coop program would indicate a very stable membership since their founding some years ago. This indicator correlates very well with the individual indicators of organizational behavior (number of organizations belonged to .286, attendance at meetings, .257 membership participation, .313 and leadership role .324) and could be included in that group of measures. However, it has been included as an Activism indicator because the act of founding an organization marks the beginning of a new set of experiences which are likely to contribute to the individual's growth.

Summary of the Activism Variable

Growth activities are experiences that an individual has due to his own volition which expose him to environments and events different from his normal life patterns. These growth activities offer the individual an opportunity to expand his horizons and encounter new ideas and life styles. Development programs should encourage their participants to try such activities and could also incorporate growth activities as part of their program. These activities, however, should be tailored to the specific socio-economic class of the program participants, giving special care to the lower levels where income and education are structurally limiting factors.

Exposure to Mass Media

Another measure of Growth Activities is exposure to mass media. An index composed of three questions is used to measure the relative frequencies individuals have contact with newspapers or radios, television, and movies.

Exposure to Mass Media Index

Question	Code	Score	Index
How often to you inform yourself of the news or current events by newspapers or radio?			
Every day	2	6	High
Sometimes	1		
Once a week or less	0	5	Medium High
Do you go to the movies:		3-4	Medium
Once a week or more	2		
Once a month	1	0-2	Low
Rarely	0		

Question	Code	Score	Index
Have you seen TV programs:			
Many times	2		
Rarely	1		
Never	0		

The programs which were strong on the Activism Index also lead the pack in Exposure to Mass Media (see Table 24) - Motivation Training and Credit Coops. Agricultural Coops, the Rice Coops, and the Colonization project are weak on Mass Media as they are on Growth Activities. However, the Small Loan program in Guayaquil and the Adult Literacy program have many more participants being exposed to Mass Media than are experiencing Growth activities. This difference is partly a function of the fact that participants in both programs live in major cities of Ecuador and have ready access to all forms of mass media. Thus, exposure to mass media, in addition to being influenced by socio-economic class, is also effected by access, that is, by the concentration of media experiences in the urban compared to the rural areas. Among occupation groups (table 25), the educated middle class occupations are strong on exposure to mass media (university students, teachers, change agents, white collar employees). Among the working class occupations, including small merchants, all those except the farmer are influenced somewhat by an urban environment and are notably stronger in their exposure to mass media than in their growth activities. This obviously suggests a greater use of the media than is now being made by most development programs to begin to systematically introduce ideas to their participants.

TABLE 24

MASS MEDIA INDEX BY DEVELOPMENT PROGRAMS (%)

Mass Media Index	Motivation Training	Credit Coops	Rice Coops	Agricultural Coops	Small Loans	Coloni-zation	Adult Literacy
High	36.5	33.0	13.2	5.6	15.5	8.7	19.9
Medium-High	30.9	37.6	22.6	13.2	45.4	7.0	17.6
Medium	20.0	24.2	45.7	49.6	33.0	47.0	38.0
Low	12.7	5.2	18.5	31.6	6.2	37.4	24.4
TOTAL	100.1	100.0	100.0	100.0	100.1	100.1	99.9
NUMBER =	340	792	265	234	194	115	221

TABLE 25

MASS MEDIA INDEX BY OCCUPATION GROUPS (%)

Mass Media Index	Change Agents	Teachers	Univ. Students	Small Merchants	White Collar	Laborers	Artesans	Farmers	All
High	50.0	39.0	65.9	24.6	44.1	31.9	30.3	4.3	21.6
Medium-High	23.9	40.7	22.0	26.3	35.3	17.0	22.1	6.4	24.4
Medium	23.9	20.3	12.2	47.4	17.6	29.8	31.0	34.2	34.3
Low	2.2	0.0	0.0	1.8	2.9	21.3	16.6	55.1	19.6
TOTAL	100.0	100.0	100.1	100.1	99.9	100.0	100.0	100.0	99.9
NUMBER =	46	59	41	57	34	47	145	187	3313

Mass media contact has positive relation to three of the four behavioral variables related to development. The relationship is most pronounced with the Activism Index.

Table 26

MASS MEDIA INDEX BY ACTIVISM INDEX

Mass Media Index	Activism Index: High %	Medium %	Low %	Totals	N
High	54.1	38.1	7.8	100.0	716
Medium High	41.9	46.5	11.6	100.0	810
Medium	21.9	54.9	23.2	100.0	1136
Low	8.5	54.4	37.1	100.0	640

A similar but less pronounced relationship exists between Mass Media exposure and Use of New Technology and Participation in Organizations. The greater the contact with mass media the more likely is the individual to engage in development related behavior. However, the special case of Participation in Community Projects is again affirmed in that there is no relationship between Mass Media exposure and Community Projects participation. The isolation of the community project activity from mass media effects as well as from education and income suggests a fertile area for development work at the low socio-economic levels. Community projects appears to be one activity that includes individuals who are not otherwise touched by development programs.

Summary of Mass Media Variable

Exposure to mass media is a complementary measure of growth activities but is more limited because it is closely related to education, income, and the urban setting. Unfortunately, the use of mass media by development programs appears rather restricted except in a few cases, such as radio schools for literacy. It might be fruitful for development programs to include general publications and radio or television programs as integral aspects of their program.

II. DEVELOPMENT ATTITUDES

Attitude change is widely recognized as a key requirement for development. For example, families must change from a passive, "we accept whatever number of children that God gives us" to "we can decide how many we shall have and when to have them." They must change from a careless, haphazard approach to contraceptive use to a regular, responsible, understanding use. Farmers must change from acceptance of traditional farming methods as the only trusted way to some experimentation with new techniques. The idea that planning can be helpful and productive must replace fatalistic acceptance of fate's handouts. Increased trust in others must overcome traditional suspicions if people are to work together for common goals. The basic belief that improvement in life style for oneself and one's children must displace pessimism and hopelessness.

Unfortunately, through bitter past experience it has been found that attitudes do not change automatically with the acceptance of loans, grants, technical assistance or outside leadership. All too often such external help is viewed in the traditional manner as fortuitous, an act of God, requiring only passive compliance with the particular idiosyncratic demands of the giver. No real change in outlook occurs and when the outside force passes from the scene all returns back to normal.

If development programs are to become more effective in promoting individual growth there must be greater awareness of the role of attitude change related to development. It must be recognized that although development program objectives are usually couched in behavioral terms, it is attitude change that is the primary means for achieving the desired behavior changes. Development programs are generally powerless to force behavior change. Rather they must cajole, persuade, allay fears, convince, motivate, reinforce, and provide information sources to their participants. In other words, development programs must deal directly with attitude change with the hope that behavior change follows.

But trying to change attitudes is an extremely frustrating business since attitudes are not directly observable. Attitudes cannot be analyzed in the same way as behavior patterns. For example, a farmer either uses fertilizer or he doesn't but how can one tell whether he is motivated or not to increase his production? How can we analyze the mental barriers to change that seem to limit the effectiveness of well designed development programs?

One of the major objectives of this study is to suggest attitudinal concepts that are related to development which can help clarify these problems. For instance, there is a widespread assumption that underprivileged people automatically have strong aspirations to change. It can be shown, however, that many are content with their lot or are fearful of the risk involved in change. If aspirations

can be measured, then a program for those with low aspirations can be especially designed, preparing them for later inputs of information and skill training. If aspirations are high, then efficacy training, technology, or organizational skills can be the focus.

A set of five attitude concepts are offered which may help the staffs of development programs more clearly analyze the problems t face and give guidelines for appropriate lines of action. The measures of each concept are based on five or more individual questions that have been combined into indices for each concept. Each concept will be explained with its accompanying index. Global dat by development program will illustrate their use and comparisons with the behavioral variables will be presented to show developmental patterns. The five attitudes are Aspirations, Openness, Efficacy, Problem Solving, and Respect for the Dignity of others.

A. Aspirations

Aspirations of individuals are postulated as the motivating forces behind whatever efforts are made for self-improvement. If aspirations are limited to just getting by, then the individual would probably show little interest in innovation unless he became convinced that his task would be easier by changing somewhat. We have found that individuals with low aspirations are very reluctant to adopt new technologies and tend to be very inactive in organizations.* Working with low aspiring individuals presents a basic problem for development programs. Aspirations must be built up pri to significant technical or organizational inputs if there is to be a hope of lasting change. This problem must be recognized by the staff of the development program. The Aspiration Index is a tool to assist in analyzing the aspiration level of program partici pants or of potential program participants.

Aspiration Index

The Aspiration Index is composed of five questions which relate to different dimensions of an individual's life. Two questions deal with his aspirations for his son's education and occupation. One question relates to his aspirations for positions of leadership and the last two questions are concerned with his general outlook for an improved life.

---

* Economic Growth in Rural Santo Domingo, Crampton and Keeler, 1971.

Question	Code	Score	Index
Suppose that you have young sons. Would you want them to have the same occupation that you have?			
No, a profession or whatever they choose	2	9-10	Very High
		8	High
No, any other occupation	1	7	Medium High
Yes	0	6	Medium
Suppose that you have young sons. What level of education would you want them to receive?		4-5	Medium-Low
		0-3	Low
University	2		
Secondary	1		
Primary	0		
Do you have an interest in being the president of your community or president of an organization?			
Much interest	2		
Some interest	1		
No interest	0		
What opportunities do you have to better your life?			
Much opportunity	2		
Some opportunity	1		
Little opportunity	0		
What do you think of the position in Ecuador of people like yourself?			
Ought to change rapidly	2		
Ought to change slowly	1		
Ought to stay the same	0		

The Aspiration Index is divided into six categories from Very High to Low aspirations. This permits discriminations within groups with widely different socio-economic levels. For example, in Table 28, 63% of the farmers are in the lowest two categories compared to teachers with only 17% in the bottom categories. Among the occupational groups in Table 28 there appears to be four different patterns of aspirations. The farmers have the lowest aspirations with heavy clustering at the bottom end of the Aspiration Index.

Teachers and university students have the highest aspirations clustering toward the top of the Index. Laborers and artesans are intermediate with the laborers slightly stronger. These first three patterns are clear and show few discontinuities. But the change agents, the small merchants and the white collar employees are much more erratic in their aspiration patterns. Among these three occupations there appears to be a split between those who have relatively low aspirations and those who are ambitious. For instance, 37% of the change agents and 40% of the small merchants are in the bottom categories of the Index. This phenomenon might be explained by the fact that many members of these middle class occupations are quite satisfied with their situation and would therefore not be inclined to accept or push any change which might threaten their work pattern. Obviously, it would be helpful for a development program to be able to identify this attitude and either try specifically to overcome it or avoid working with or hiring such individuals.

In Table 27, Aspiration Index by Development Programs, some interesting factors emerge. First, the programs involving innovation or risk have participants with fairly high aspiration levels - Motivation Training, Colonization, and Credit. Second, programs working with poor farmers have the problem of low aspirations with their participants - Rice and Agricultural Coops. Third, the Adult Literacy program, with participants of very low aspiration levels, have a serious problem. These participants can hardly be expected to respond to literacy training unless they have stronger aspirations for improving their life style. Fourth, the Small Loan program in Guayaquil, which has been uniformly low on the developmental behavioral indicators, exhibits aspiration patterns very similar to the Credit Coop program. Perhaps this is a case where the use of credit serves as a special indicator of development behavior as was suggested earlier. But if the use of credit is not coupled with improved technology then it will be used in a traditional manner which contributes little to the overall improvement and efficiency of the economy. Thus we should distinguish between aspirations for traditional betterment and aspirations for betterment through change in technology or change through working in organizations. Our development behavior variables seek to measure change oriented behavior rather than traditional patterns of doing things.

TABLE 27

ASPIRATIONS INDEX BY DEVELOPMENT PROGRAMS (%)

Aspiration Index	Motivation Training	Credit Coops	Rice Coops	Agricultural Coops	Small Loans	Coloni-zation	Adult Literacy
Very High	14.1	12.8	2.3	6.4	10.3	13.9	5.0
High	18.2	15.4	4.9	9.4	12.9	13.9	7.2
Medium-High	18.2	19.1	8.3	13.7	18.0	15.7	9.5
Medium	20.3	19.8	14.3	21.4	20.6	13.9	16.3
Medium Low	19.4	23.7	35.1	31.2	26.3	26.1	35.3
Low	9.7	9.2	35.0	18.0	11.8	16.5	26.8
TOTAL	99.9	100.0	99.9	100.1	99.9	100.0	100.1
NUMBER =	340	792	265	234	194	115	221

TABLE 28

ASPIRATIONS INDEX BY OCCUPATION GROUPS NOT IN DEVELOPMENT PROGRAMS (%)

Aspiration Index	Change Agents	Teachers	Univ. Students	Small Merchants	White Collar	Laborers	Artesans	Farmers	All
Very High	6.5	13.6	19.5	8.8	2.9	17.0	13.8	5.3	8.7
High	21.7	22.0	22.0	14.0	26.5	12.8	10.3	7.0	11.4
Medium-High	19.6	25.4	24.4	8.8	11.8	21.3	14.5	9.6	13.9
Medium	15.2	22.0	17.1	28.1	35.3	12.8	15.2	15.0	17.5
Medium-Low	2.2	10.2	12.2	28.1	8.8	25.5	33.1	26.7	27.0
Low	34.7	6.8	4.9	12.3	14.7	10.6	13.1	36.4	21.5
TOTAL	99.9	100.0	100.1	100.1	100.0	100.0	100.0	100.0	100.0
NUMBER =	46	59	41	57	34	47	145	187	3313

Aspirations and the Developmental Behavioral Variables

Aspirations relate positively to all four behavioral variables, that is, those with high aspirations are much more likely to be active in development related personal growth behavior than those with low aspirations. The strongest relationship is between Activism and Aspirations. Individuals with high aspirations are more than three times as likely to expose themselves to individual growth activities than those with low aspirations. High aspirants are twice as likely to be active in organizations or to use new technology. The relationship also holds between aspirations and community project participation but is not as pronounced. Many individuals with low aspirations are moderately active in community projects. Participation in community projects seems to be the realm of the middleman, those with neither very high or very low aspirations.

Summary of Aspirations Variable

Aspirations is a threshold variable for development behavior. An individual must desire to improve his life before he will seek or be responsive to opportunities. Our measures of aspirations include occupational and educational opportunity for his sons, leadership aspirations, and general orientations toward life betterment. Aspiration patterns are complex, reflecting education, actual opportunities (limited in the rural areas), and occupation. The trickiest aspiration patterns are those of the lower middle class occupations, except for teachers and university students who have high aspirations. Some change agents, small merchants, and white collar workers seem eminently satisfied with their situation while others show moderately strong aspiration levels. Positive relationships are evident between aspirations and the four developmental behavioral variables.

B. Openness to New Ideas

Being open to new ideas is the key difference between the traditional and the change oriented individual. One of the biggest mistakes often made by development programs is to select participants or leaders who have strong aspirations but who are really quite closed to change. A good example is the community action program in Columbia where thousands of community leaders were selected to head community action committees for their village. They were ambitious all right, but only to solidify their traditional positions in the community. Their interest in innovation was very low and the results were a classic disaster - little or no change in the community life style.

Sometimes is it surprising to discover how closed to innovation individuals may be. This discovery comes as a shock when individuals exhibit passive acquiesence to the introduction of a new way of doing something yet show minimal changes in their behavior. Usually the proffered idea, which makes so much sense to the change agent, is not received by the participant because it is not anchored in an immediately relevant behavior pattern. Receptivity depends on being able to tie the idea to present ways of doing things. The new idea must somehow be relevant to present concerns and interests, not to what the outsider thinks ought to be needed by the individual.

Another example of resistance to change comes from efforts of a radio school literacy program to organize community development projects. Instead of community development projects as planned by the program staff, football teams were organized with great enthusiasm and success. The director of the program had the good sense to encourage these teams from which, in the future, community organizations may emerge.

A third example is the striking difference in behavior patterns between peasants who have rejected the authority of the Catholic Church and have become either non-believers or Protestants and those who remain within the Church. More stable work habits, increased use of new methods, greater effort to educate themselves and their children, increased savings and little or no drinking are all manifestations of marked openness to new ideas. Why or how this comes about is not at all clear, yet the phenomenon is there. The best that can be suggested at this stage in our understanding is to exercise care in the selection of participants. Openness can be encouraged but changing a rigid, closed mentality appears to be very difficult.

Openness Index

Measurement of the openness dimension has been done in three ways. One by confronting the individual with alternative value choices, one of which reflects the weight of tradition and the other a conflicting "modern" value. Can a man be really good without any religion?* Does a couple have the right to limit the number of children they have or should they accept those that come?* A second way of measuring openness was to present hypothetical situations which challenged the individual's ability to project himself into unfamiliar circumstances. If you could double your income, would you move away to a place with different customs and a different

* These questions were adapted from the work of Alex Inkeles. They form part of his short form overall Modernity Scale.

language? Would you like to be among the first to try a new technique or would you rather wait until the technique was tested by your companions? The third way of measuring openness was by asking about the individual's interests in things beyond his immediate sphere of life, namely in other countries. In all of these measurement approaches the individual's receptivity to strange or different things is tapped.

Question	Code	Socre	Index
Do you think a man can really be good without having any religion?			
Yes	1	6 - 7	Very High
No	0	5	High
a) Some say that it is necessary that a man and his wife limit the number of children they have.		4	High Middle
b) Others say that they ought to have the children that come.		3	Middle
Which do you think is better?			
a)	1		
b)	0	0-1	Low
Could you understand the way of thinking of a person who lives in another country thousands of miles away?			
Yes	1		
No	0		
What aspects or things of other countries interest you the most?			
3 or more items	1		
0 to 2 items	0		
If you could live twice as well as you live now in a distant place where the customs and the language are different, would you be disposed to move there with your family?			
Yes	1		
No	0		
Would you be disposed to live permanently in the frontier (Oriente) if you were given 30 hectares of land free.			
Yes	1		
No	0		

Question	Code
Two friends talking: One says: I like to be among the first ones to try a new technique in my work or to do a new thing. The other says: Before trying a new technique in my work or trying a new thing, I like to have it well tested by my companions. With which person do you agree?	
The first	1
The second	0

The Openness Index, which is composed of seven questions, clearly shows the iron grip of tradition on the lower socio-economic groups. In Table 29, Openness by Development Programs, only Motivation Training and the Credit Coop program have participants who exhibit high openness patterns. Motivation Training specifically focuses on expanding the individual's self-perception, awareness of his relationships with others, and creative approaches to problems. Credit Coops have a large proportion of educated middle class individuals who tend to be much more open compared to less educated classes. This is brought out in Table 30, Openness Index by Occupation Groups, where the data indicates significant differences between the more educated groups, change agents, university students, and white collar employees, compared to farmers, laborers, and artesans. Farmers, as usual, occupy the bottom position with artesans next to last. The openness patterns in Table 29 appear to reflect two factors, education level and type of occupation. The fundamental break between low and moderate openness depends on education level, the better educated groups having higher openness than those with less education. But within each of these levels the type of job has its effect. For instance, at the low educational level, farmers and artesans have traditional jobs which do not expose them to much change oriented stimulus compared to the urban worker who is more in contact with change.

The Openness Index picks up this distinction showing laborers slightly stronger in openness than farmers and artesans. In the better educated groups, change agents, university students and white collar employees (largely public bureaucrats in this sample) are more exposed to new ideas than are teachers and small merchants.

The Openness Index is a tool which may help development program staffs analyze the degree of rigidity in their participants but

they also ought to be sensitive to evaluating other obvious indicators. For example, they can note the strength of tradition evidenced by participation in traditional fiestas or ceremonies, the observance of traditional formalities in personal relationships, the allegiance given to authority figures such as the local priest or the local patrón, or the dress habits of their participants. In trying to avoid excessive rigidity in participants or in program leadership there is the danger of working at the opposite extreme, that is, working with individuals who are very open to change but who have little influence with other members of the community. Individuals who are much more open than their companions will certainly benefit from development programs but will not always play an important role in the multiplier effect, in spreading information or ideas to others. Finding this middle ground is essential but presents many difficult problems for program staff.

Openess to New Ideas and the Behavioral Variables

Openness to new ideas is strongly related to Activism (growth activities) moderately related to Use of New Technology and Organizational Participation. It is not related to Participation in Community Projects. Open individuals are three times as likely to expose themselves to outside experience as closed individuals. This is another reason to have development programs deliberately attempt to include growth activities for their participants with the idea of increasing their openness to new ideas. Open individuals are twice as likely to try new techniques or methods in their work and to participate in organizations as are the more traditional individuals. Again we have participation in community projects as a traditional activity which appears to have little or no relation to change orientations.

From the strong relationship between Activism and Openness we begin to have a clue to a possible conflict in development strategies. Individual growth and change may occur faster by working with individuals who are most open to new ideas. These individuals tend to go off on their own initiative and chafe at the constraints of working with others in formal organizations. Yet the results in terms of the broader community or society may be limited because they have lost or attenuated their ties to tradition. On the other hand, working in organizational contexts promises far greater spread of new ideas but ideas which have to be acceptable to a tradition based community. Change is slower in this case. Perhaps development programs should clearly distinguish these two types of activities, working with very open individuals in risk oriented, experimental projects on an individual basis and the slower, more frustrating work with organized groups. Only the proven, clearly demonstrable ideas that emerge from efforts with the risk takers should be introduced to the larger group of participants.

TABLE 29

OPENNESS INDEX BY DEVELOPMENT PROGRAMS (%)

Openness Index	Motivation Training	Credit Coops	Rice Coops	Agricultural Coops	Small Loans	Coloni-zation	Adult Literacy
Very High	14.1	9.3	3.8	2.6	4.6	2.6	3.2
High	24.1	17.2	8.7	14.1	10.8	11.3	6.3
High-Middle	23.2	19.3	15.8	16.7	18.6	14.8	15.8
Middle	19.4	24.7	27.2	26.1	27.8	27.0	28.1
Lower-Middle	11.2	17.4	24.9	21.8	24.7	33.0	26.2
Lower	8.0	12.0	19.6	18.8	13.4	11.3	20.4
TOTAL	100.0	99.9	100.0	100.1	99.9	100.0	100.0
NUMBER =	340	792	265	234	194	115	221

TABLE 30

OPENNESS INDEX BY OCCUPATION GROUPS NOT IN DEVELOPMENT PROGRAMS (%)

Open Index	Change Agents	Teachers	Univ. Students	Small Merchants	White Collar	Laborers	Artisans	Farmers	All
Very High	15.2	5.1	14.6	1.8	26.5	8.5	9.7	5.9	6.7
High	30.4	23.7	31.7	24.6	20.6	21.3	15.9	12.3	14.6
High-Middle	23.9	27.1	29.3	22.8	17.6	21.3	13.1	14.4	17.8
Middle	15.2	23.7	19.5	26.3	17.6	17.0	30.3	26.7	25.1
Lower-Middle	4.3	15.3	2.4	14.0	14.7	21.3	21.4	23.0	20.8
Lower	10.8	5.1	2.4	10.5	2.9	10.6	9.7	17.6	15.0
TOTAL	99.8	100.0	99.9	100.0	99.9	100.0	100.1	99.9	100.0
NUMBER =	46	59	41	57	34	47	145	187	3313

Summary of Openness to New Ideas Variable

Openness to new ideas is the critical element distinguishing traditional from change oriented individuals. It is a very subtle factor but has a powerful impact on development programs. Therefore every effort should be made to avoid selecting individuals, either for leadership roles or as participants, who are strongly traditional and closed in their thinking. Open individuals are found in every group and community but are less abundant in the less educated strata or in traditional occupations. Working with very open individuals is exciting and rewarding for development program staff but there is the danger of having limited multiplier effect on the larger community. Therefore a two-pronged approach might be useful, one experimental and individualistic and the other, slower with more limited objectives but with organized groups.

C. Sense of Personal Efficacy

An individual's sense of personal efficacy is his confidence in dealing with his physical and social environment. Is he fatalistic and passive or is he secure and independent, whether with his companions, authority figures, or problems on the job? Efficacy is, perhaps, the crux of the individual growth problem. Aspirations and openness to new ideas can be seen as prerequisites or necessary conditions to individual growth, but an adequate sense of efficacy is the basis of a "can do" outlook for the individual. Yet traditions of paternalism and authoritarianism in underdeveloped countries have produced deeply engrained habits of dependency among lower status groups. Reversing these habits is a mighty task indeed.

This basic attitude, a sense of personal efficacy, probably accounts for more of the difference between the behavior of citizens of developed countries compared and citizens of the less developed countries than any other single factor. Yankees, German, Japanese, Israelis, Englishmen, if generalizations can be made, appear to have a much stronger sense of ability to influence the environment than do those who live in less developed countries. The reasons for this apparent fact are not at all clear, whether, climate, religion, resources, isolation from principal trading channels, or race. All have their advocates. But for whatever reasons, development programs are faced with the problems of building up the sense of personal efficacy among their participants.

To improve individual efficacy requires experiential learning. Confidence is gained slowly through a series of reinforcing success experiences.

The critical aspect of this learning is that the individual must do the task himself; he must assume a large part of the responsibility of the planning and the execution of the job on his own. This is hard for the change agent, whether foreign or national, to allow. After all, the change agent is the one who knows how to do the task, he is charged with responsibility for its completion, and he gains personal satisfaction from managing the whole project. Furthermore, the participants are accustomed to following the leadership of others. The only problem is that the efficacy level of the participants is not given a chance to grow. Therefore, to build efficacy, a new type of leadership role must be followed, a much more indirect role involving minimal guidance with lots of encouragement. Progress is apparently slower, errors occur, and frustrations increase geometrically for the change agent. To accomplish this role shift, the change agent himself needs training and support. He must learn to play a stimulator role instead of a paternalistic role.

A stimulator role focuses on the learning process as much as on the project task in contrast to the task orientation of the usual leadership role in the development context. In order to ask change agents to assume the less active, learning oriented stimulator role, the evaluation of their efforts must also change. Individual growth must be added to the accomplishment of the concrete project tasks. Otherwise the change agent's incentive would continue as in the past, get the job done, period, even if he has to do it himself.

Efficacy Index

The measurement of sense of efficacy was approached in three ways. First, the respondent was presented the choice between problem acceptance or problem avoidance. Do you enjoy (the challenge of) facing your present problems or would you prefer less problems? Have you wanted to do something about community problems?* Can a poor man become rich if he is ambitious and hard working? Another approach was to present hypothetical situations depicting confrontations with authority figures, asking for choices as to whether the individual involved should back away or stand up to the authority figure. Do you feel you could influence the president of an organization if you had another point of view? Do you think the political leader (teniente político) of a community has a right to make decisions about what the community should do? Have you openly criticized the policy of your organization? A third way of measuring efficacy was to give the respondent the opportunity to blame others, luck or God, for unpleasant occurrences. Situations were presented where blame or responsibility could be

* These questions are also part of Alex Inkeless' short form of his Modernity Scale.

either accepted by the individual involved (efficacous) or could be blamed on others (fatalistic or dependent). For example, if a child dies, it is because Good took him or because of lack of medicine or poor health conditions? If a harvest fails, it is because of poor use of modern techniques or because of bad weather or disease? Most important for the future of Ecuador is hard work of the people and good governmental planning or it is it God's help and good luck?*

The Efficacy Index is composed of nine questions.

Question	Code	Score	Index
Problem acceptance or avoidance:			
Do you enjoy the problems of your work now or would you prefer to work with fewer problems.			
Enjoy present problems	2	15-18	Very High
Prefer fewer problems	0		
Can a poor man become rich if he is ambitious and works hard?		13-14	High
		11-12	High
Yes	2		Middle
Sometimes	1		
No	0	9-10	Middle
Have you really wanted to do something about the problems in your community, such as schools, roads, potable water, or others		6-8	Low Middle
		0-5	Low
Many times	2		
Sometimes	1		
Few times	0		
Fatalism or dependency:			
What do you think is most important for the future of Ecuador?			
Hard work of the people or a good plan by the government	2		
God's help or good luck	0		
If a harvest fails it is because:			
the farmer hasn't applied modern methods well	2		

* These questions are also part of Alex Inkeless 'short form of his Modernity Scale.

Question	Code
Disease or bad weather	0
Both	1
If a child dies it is because:	
Lack of medicine or poor health conditions	2
God took him away	0
Confrontation with authority:	
Have you criticized openly the orientation of your organization?	
Yes	2
At times	1
No	0
Do you think that political leader of a community has the right to decide what the community ought to do?	
No	2
Sometimes	1
Yes	0
Could you influence the position of the president of an organization if you have another point of view?	
Yes	2
Sometimes	1
No	0

The Efficacy Index gives us an immediate identification of the programs and occupation groups which have serious self-confidence problems with their participants. Adult Literacy, Rice Coops, Small Loans, and to a lesser degree the Colonization program have participants who heavily cluster in the lower reaches of the Efficacy Index. Credit Coop and Agricultural Coop participants are about average and Motivation Training participants are very strongly efficacous. Among occupations, change agents, teachers, university students and, to some degree, white collar employees have little trouble with their sense of personal efficacy. The lower socio-economic occupations are the ones in need of efficacy boosting. Participants in the Colonization program, however, are significantly above the control group for farmers in their efficacy level. Agricultural Coop participants are also considerably stronger in their sense of efficacy compared with other farm groups.

The Efficacy Index is influenced by education and occupation but it also reflects substantial differences in efficacy levels within

socio-economic groups. These differences may, in part, be attributed to the impact of various development programs. The Motivation Training program participants, which include 29% farmers, shows a very high efficacy level but the fact that 45% of the participants are in the high efficacy occupations, change agents, professors, and university students makes the job much easier. Credit Coops, on the other hand, have only 21% of their participants in these high efficacy occupations with 44% farmers, workers, and small merchants on the low side of efficacy. More precise understanding of the effect of each program requires sub-group analysis by education and occupation groupings of the program's participants.

In addition to looking at the efficacy levels of various groups it is instructive to compare efficacy with aspiration levels. Aspirations were postulated as the key motivating forces necessary for change. Individuals with low aspirations would logically have even lower efficacy levels. The data support this hypothesis for the lower socio-economic groups. Efficacy levels for farmers, artesans, laborers, and small merchants are all lower than their respective aspirations. Yet for the higher socio-economic groups who have stronger aspiration, the efficacy patterns are above the aspiration levels. This indicates that aspirations is a threshold variable which is of prime importance for the lower groups but once a certain aspiration level has been reached, other variables become more salient, such as openness. The progression is probably from low aspirations to medium aspirations. Then individuals must develop higher efficacy to try to attain their moderate aspirations but still very much within traditional patterns. After individuals are coping well with their moderate aspiration levels there should be an effort to induce them to move toward changes in technology and acceptance of new ideas. Therefore, for development programs which have many participants in the lower socio-economic levels, much of their focus should be on aspiration building and on efficacy building which is closely related to traditional patterns. Later or with higher socio-economic groups the focus should shift to introducing new ideas and advanced technology. Efficacy building at this level would involve more skill training and less confidence building.

Efficacy and the Development Behavior Variables

A sense of personal efficacy is the attitude most closely related to behavior. The data show very strong relationships between efficacy and the four development behavior variables. Highly efficaccus individuals are six times as likely to experience individual growth activities and participate in organizations as are low efficacy individuals. The highly efficacous individuals are three times as likely to use new technology and more than twice as likely to participate in community development projects. These

TABLE 31

EFFICACY INDEX BY DEVELOPMENT PROGRAMS (%)

Efficacy Index	Motivation Training	Credit Coops	Rice Coops	Agricultural Coops.	Small Loans	Coloni-zation	Adult Literacy
Very High	31.2	12.6	1.5	10.7	1.0	8.7	0.9
High	23.5	19.2	6.0	13.2	9.8	10.4	4.5
High-Middle	20.3	22.2	12.8	23.9	23.7	18.3	8.6
Middle	15.0	21.8	23.8	26.5	21.6	27.8	16.3
Lower-Middle	6.5	14.4	27.2	19.2	23.7	24.3	30.3
Lower	3.5	9.7	28.7	6.5	20.1	10.4	39.3
TOTAL	100.0	99.9	100.0	100.0	99.9	99.9	99.9
NUMBER =	340	792	265	234	194	115	221

TABLE 32

EFFICACY INDEX BY OCCUPATION GROUPS NOT IN DEVELOPMENT PROGRAMS (%)

Efficacy Index	Change Agents	Teachers	Univ. Students	Small Merchants	White Collar	Laborers	Artesans	Farmers	All
Very High	39.1	27.1	29.3	3.5	11.8	2.1	7.6	1.6	10.0
High	34.8	30.5	24.4	8.8	23.5	6.4	16.6	7.5	13.6
High Middle	13.0	16.9	22.0	19.3	29.4	10.6	16.6	15.5	18.2
Middle	6.5	23.7	7.3	19.3	20.6	34.0	21.4	32.6	21.9
Lower-Middle	6.5	1.7	7.3	31.6	11.8	29.8	24.1	25.1	20.3
Lower	0.0	0.0	9.7	17.6	2.9	17.0	13.8	17.7	16.1
TOTAL	99.9	99.9	100.0	100.1	100.0	99.9	100.1	100.1	100.1
NUMBER =	46	59	41	57	34	47	145	187	3313

relationships bear out the development steps that have been sketched above. Individuals with low aspirations and low efficacy are much less likely to be involved in development behavior. Individuals with moderate to high aspirations also tend to have higher efficacy and become active in development behavior which is not too different from their traditional habits (participation in coops and travelling to markets and fiestas). The biggest jump is to begin to adopt new technologies which lead to quite different life styles demanding more planning and establishing different market relationships.

Summary of the Sense of Personal Efficacy Variable

Sense of personal efficacy is the keystone attitude of development. Individuals who lack faith in their personal ability to influence their physical or social environment are doomed to perpetual lethargy and dependency. But prior to building efficacy the individual must aspire to some improvements in his own life or that of his children. Once the aspiration threshold has been reached then increased efficacy begins to be reflected in development behavior. The efficacy levels of the lower socio-economic groups are quite low compared to the more advantaged social classes. To change this both aspiration building and efficacy training are needed. At higher levels the emphasis should shift to increasing openness as well as efficacy.

D. Problem Solving Ability

Problem solving skills cannot technically be called attitudes, yet these mental abilities were consistently mentioned by development program staff members as vital to program success for their participants. Problem solving skills are related to sense of efficacy in that ability to solve problems would increase an individual's sense of capacity to influence his physical and social environment.

Problem solving skills must be learned, like efficacy, experientially. Problem solving involves much more than problem analysis. Planning and execution of solutions with use of resultant feedback are also elements of problem solving. For maximum learning the participant must go thru these steps with minimal guidance from the change agent. The change agent should assist in keeping the problem limited in scope to allow for a reasonable chance of success; he can also introduce the participants to sources of information and resources as they are found to be needed by the participants themselves. Again, as in the case of efficacy, restraint is difficult for the change agent. He is often more concerned with gaining acceptance for his ideas and plans than in promoting the growth of problem solving skills among participants.

This is understandable because the change agent is frequently called upon to plan each step of a project prior to contacting or prior to organizing the participants. Unless antecedent planning for the program is very general, and unless the change agent is given wide discretion in allowing change in the planning and execution of a program, limited individual growth in problem solving will occur among the participants.

Measurement of the problem solving variable was done from two perspectives. One is problem identification and the other is problem analysis. Problem identification was measured by asking, Could you indicate some of the problems of Ecuador? and What are the problems of your community? Problem analysis was measured by asking for specific ideas on how to solve specific problems. How can you increase your income or production? How could the infant mortality rate be reduced? How could you get a good education for your children? and what steps are necessary to solve the most pressing problem in your community? Problem identification was scored by the number of problems mentioned and problem analysis by the number of distinct ideas or concepts given about a certain problem. Measurement of planning skills, effectiveness in following through with solutions and ability to use feedback, which are all essential elements of problem solving, were not measured because of the difficulty in dealing with these skills in verbal generalities. All these questions are open (instead of the usual closed) questions.

Problem Solving Index

The Problem Solving Index is composed of six open questions.

Question	Code	Score	Index
Could you indicate some of the problems of Ecuador?		10-12	Very High
		8-9	High
4 or more problems mentioned	2		
2 or 3 problems mentioned	1		
0 or 1 problem mentioned	0	6-7	High Middle
How could the number of children that die in Ecuador be reduced?		4-5	Middle
		2-3	Low Middle
4 or more ideas mentioned	2		
2 or 3 ideas mentioned	1		
0 or 1 idea mentioned	0	0-1	Low

Question	Codes
How could you increase vour income or your production?	
3 or more ideas mentioned	2
2 ideas mentioned	1
0 or 1 idea mentioned	0
How could you obtain a good education for your children or the children of your relations?	
3 or more ideas mentioned	2
2 ideas mentioned	1
0 or 1 idea mentioned	0
What are the problems of your community?	
4 or more problems mentioned	2
2 or 3 problems mentioned	1
0 or 1 problem mentioned	0
Of these problems which is the most important? What factors or steps are necessary to solve this problem?	
5 or more ideas mentioned	2
3 or 4 ideas mentioned	1
0, 1, or 2 ideas mentioned	0

Familiar patterns are found in Table 33, Problem Solving Index by Development Programs. Motivation Training participants are on top with well over double the proportions of participants in the high categories of other programs. Rice Coop, Small Loans, and Adult Literacy are low with 70%, 46% and 62% respectively in the bottom categories of the Problem Solving Index. It is interesting to compare the Rice Coop participants with the Colonization participants in this regard. Rice Coop participants are very low in problem solving (70% in bottom two categories) while Colonization participants are very similar to the Credit Coop and Agricultural Coop participants with 22% in the bottom two categories of the Index. This is a very large disparity may well reflect the distinct nature of the two programs. The Rice program is under competent direction which has produced notable changes in use of technology and in organizational participation with a group of poorly educated farmers (70% with less than 4 years of education). Yet individual problem solving ability, according to our measure, remains very low. On the other hand, the Colonization program of CREA, composed also of poorly educated farmers (but at a higher level of formal education than the Rice Coop participants with only 34% with less than 4 years of schooling) has participants with very much stronger problem solving ability. The Colonization participants are helped

TABLE 33

PROBLEM SOLVING INDEX BY DEVELOPMENT PROGRAMS (%)

Problem Solving Index	Motivation Training	Credit Coops	Rice Coops	Agricultural Coops	Small Loans	Coloni-zation	Adult Literacy
Very High	16.5	6.2	2.6	5.6	1.0	6.1	2.3
High	23.8	14.6	3.0	17.5	9.8	10.4	4.1
High-Middle	27.6	22.7	7.2	29.9	13.4	30.4	14.0
Middle	17.9	28.9	16.6	23.9	29.4	31.3	17.2
Lower-Middle	8.2	15.3	25.7	12.8	23.2	11.3	15.4
Lower	5.9	12.3	44.9	10.2	23.2	10.5	47.0
TOTAL	99.9	100.0	100.0	99.9	100.0	100.0	100.0
NUMBER =	340	792	265	234	194	115	221

TABLE 34

PROBLEMS SOLVING INDEX BY OCCUPATION GROUPS NOT IN DEVELOPMENT PROGRAMS (%)

Problem Index	Change Agents	Teachers	Univ. Students	Small Merchants	White Collar	Laborers	Artesans	Farmers	All
Very High	21.7	10.2	24.4	1.8	5.9	2.1	5.5	3.2	5.7
High	28.3	23.7	19.5	14.0	17.6	14.9	12.4	9.6	12.0
High-Middle	17.4	37.3	26.8	21.1	32.4	29.8	26.9	19.8	20.5
Middle	19.6	23.7	14.6	22.8	17.6	21.3	21.4	29.4	23.5
Lower-Middle	4.3	3.4	0.0	28.1	8.8	14.9	18.6	17.1	17.1
Lower	8.7	1.7	14.6	12.3	17.6	17.1	15.2	29.9	21.2
TOTAL	100.0	100.0	99.9	100.1	99.9	100.1	100.0	100.0	100.0
NUMBER =	46	59	41	57	34	47	145	187	3313

in a loose way by a team of Peace Corps Volunteers but the responsibility for running their coop is on their own shoulders. It shows.

Among occupation groups, Table 34, the difference between higher and lower socio-economic occupations is still apparent but are not nearly so large as with some of the other variables. Most of the problem solving questions are closely tied to personal experience and are therefore less influenced by formal education training. The only divergence from this usual split is that the white collar employees, who generally tend to cluster toward the better educated occupation groups, are only slightly stronger in problem solving than the artesans and the laborers.

Problem Solving Ability is logically an aspect of Efficacy and the data affirms this relationship. Individuals with high problem solving ability are over ten times as likely to be highly efficacous as are those with low problem solving ability. Development programs would be well advised to include some specific problem solving training in addition to more general efficacy building experiences for their participants.

Problem Solving and Development Behavior Variables

The close connection between Problem Solving and Efficacy is demonstrated by the similarity with Efficacy in the way Problem Solving relates to the four behavior variables. Both Problem Solving and Efficacy are clearly related to all four development behavior variables and in the same order. High problem solving individuals are over six times as likely to be exposing themselves to individual growth activities (Activism) and over four times as likely to be active organizational participants and use new technology as weak problem solving individuals. High problem solvers are twice as likely to be involved in community development projects as low problem solvers.

Summary of Problem Solving Variable

Problem Solving Ability is a critical skill for individuals who are interested in change. It is logically and empirically linked with Efficacy and may be considered a subdimension of Efficacy. The Problem Solving Index is based on problem identification and problem analysis and does not include other important elements of problem solving ability. Problem Solving, like Efficacy, is closely related to behavior as measured by the four developmental behavior variables. The degree of independence and responsibility that participants have in running their development program is reflected in this variable. Programs which give participants large responsibility have higher proportions of strong problem solvers than do more paternalistic programs.

E. Respect for the Dignity of Others

Respect for the dignity of others is an attitude that does not traditionally fall under the rubric of development. Economic development can occur in tightly controlled societies where authoritarian relationships are the rule and where status distinctions are important among age groups, between men and women, among ethnic groups, and among socio-economic classes. But if the concept of development is expanded to include individual growth, then respect for others is an important factor. Respect for the rights and the integrity of other human beings may be thought of as the "democratic" element of development,

Change agents can play a key role in helping to break down encrusted status distinctions that tend to retard the individual growth of various sub-groups in the society. But they must learn to listen more carefully to participants and to sharpen their perception of participant attitudes and fears. Change agents must also develop skills in helping participants learn to listen and be aware of others. An interesting example of interaction between two quite distinct status groups occurred in a Motivation Training growth laboratory. Two groups were present, priests and Indians. An exercise was given which required logical arrangement of a list of equipment needed by an astronaut on the moon (the NASA exercise) based on survival priority. Once the function of each item was clearly understood, native intelligence could provide a solution. Much to the amazed chagrin of the priests, the Indian group came up with a more accurate solution than they did (judged by the official NASA listing).

This experience and the subsequent discussion following it may have had some effect on the priests toward a reassessment of their view of Indian native capacity.

Measurement of respect for the dignity of others was done by presenting hypothetical situations involving traditionally accepted authority relationships between people of different social positions. The common theme is, Does the lower status person have equal rights with the higher status person? Who should choose the occupation of the <u>son</u>, the father or the son? What rights does the <u>wife</u> have in deciding how to spend the family income, equal rights with the husband or less rights? (Some wags insisted that the reality was the women had more rights) Does an employer have the right to humiliate an <u>employee</u> in front of other employees? Do <u>Indians</u> have the capacity for white collar work? Do <u>Indians</u> have the capacity to be educated like any other person or is their capacity to learn limited to simple things?

Respect for the Dignity of Others Index

The Respect for the Dignity of Others Index is composed of six questions.

Question	Code	Score	Index
Who ought to choose the occupation of a young man?			
The young man	1	6	High
His father	0	5	High middle
What right does a wife have in deciding how to spend money?		4	Low middle
Same right as the husband	1		
More (or less) right than the husband	0	0-3	Low
Suppose that a worker commits an error and his boss berates him in front of the other workers. If you were there, what would you think?			
That the boss ought not to berate him in front of the others	1		
That the boss has the right to berate him because the worker was wrong	0		
What do you think about the capacity of Indians?			
They are capable of manual labor?			
Yes	1		
No	0		
They are capable of office work?			
Yes	1		
No	0		
What capacity for education do Indians have?			
Like any other person	1		
For simple things	0		

The Respect for the Dignity of Others Index is probably less reliable than the other variables because there is a strong tendency for respondents to give the socially approved answers to questions rather than their deep-seated feelings. This phenomenon is reflected in the pronounced distribution of the index toward the top of the scale. Nonetheless Tables 35 and 36 show marked difference among program participants and occupation groups in participant respect for the dignity of others. The two programs with the most heterogeneous groups of participants show the highest proportion of participants with high respect for others

TABLE 35

DIGNITY OF OTHERS INDEX BY DEVELOPMENT PROGRAMS (%)

Dignity of Others Index	Motivation Training	Credit Coops	Rice Coops	Agricultural Coops	Small Loans	Coloni-zation	Adult Literacy
High	47.1	28.3	3.8	15.8	8.2	13.0	5.9
High-Middle	24.1	31.2	11.7	26.1	21.1	23.5	14.0
Low-Middle	17.1	21.5	23.8	25.2	34.5	26.1	23.1
Low	11.8	19.0	60.7	32.9	36.0	27.4	57.1
TOTAL	100.1	100.0	100.0	100.0	99.8	100.0	100.0
NUMBER =	340	792	265	234	194	115	221

TABLE 36

DIGNITY OF OTHERS INDEX BY OCCUPATION GROUPS NOT IN DEVELOPMENT PROGRAMS (%)

Dignity of Others Index	Change Agents	Teachers	Univ. Students	Small Merchants	White Collar	Laborers	Artesans	Farmers	All
High	60.9	47.5	61.0	29.8	35.3	19.1	21.4	9.1	20.8
High-Middle	28.3	28.8	22.0	19.3	41.2	19.1	23.4	17.6	23.0
Low-Middle	8.7	20.3	14.6	33.3	14.7	31.9	24.1	32.1	23.4
Low	2.2	3.4	2.4	17.6	8.8	29.9	31.0	41.1	32.8
TOTAL	100.1	100.0	100.0	100.0	100.0	100.0	99.9	99.9	100.0
NUMBER =	46	59	41	57	34	47	145	187	3313

- the Motivation Training program and the Credit Coop program. The Rice Coop and the Adult Literacy participants are very low. This may be attributed to the limited contacts the participants of the Rice program have with other types of individuals or, in the case of the Literacy program, to the traditional environment of the Cuenca area.

Neither of these possible explanations is very satisfactory however. Perhaps the egalitarian value is a function of both education level and exposure to different types of people, either through one's occupation or in an urban setting.

Even though the determinants of respect for others are not apparent it is clear that the growth of the egalitarian value is related to other development attitudes. Respect for the Dignity of Others is strongly related to Problem Solving Ability and to Efficacy. Individuals with high respect for others are over four times as likely to be high in problem solving and in sense of personal efficacy. Individuals with high respect for others are three times as likely to have high aspirations and to be open to new ideas. It is gratifying to note these relationships for they indicate that notwithstanding the economic and technical approaches to development which have been dominant in the past, "democratic" values have also been permeating the culture. If change agents and development programs were to become more individual growth oriented, then we might expect further acceptance of the value that each individual merits respect as a human being without regard to socially attributed characteristics.

Respect for the Dignity of Others and the Development Behavior Variables

Activism (exposure to growth activities) bears the closest relationship with respect for others. The highly active individuals are over three times as likely to have high respect for others as the inactive individuals. Participation in organizations is next with high participants in organization being more than twice as prone to have high regard for the dignity of others.

The relationship with Use of New Technology and Participation in Community Projects is not as strong but is clearly present.

Development programs are not generally disposed to include objectives which touch such deep-seated values as class or status prejudices and would be hard pressed to directly influence these values even if they could. Yet greater focus on individual growth would probably produce slow changes in these values as a by-product. For the individual growth philosophy is based on respect for the dignity of others. Individuals who feel that they are respected and that their problems, fears, opinions, and skills are being considered are more likely to learn and to take the risks necessary for developmental change.

Summary of Respect for the Dignity of Others Variables

Respect for the Dignity of Others is included among the five development related attitudes we have attempted to measure as a check on quality of the development process. Increased respect for others appears to be related to education level and to experiences which put the individual in contact with others different than himself. It is primarily through direct contact with differences that he can learn to accept others as they are rather than as sterotyped beings. Even though Respect for the Dignity of Others is not a primary development attitude in the sense that development programs will not consciously attempt to influence this attitude, it is clearly part of the development attitudinal syndrome and is related both to other development attitudes and development behavior.