

254-186

RURAL EDUCATION I PROJECT

FINAL REPORT

CONTRACT NUMBER

GOR/AID-511-98

SUBMITTED BY:

THE UNIVERSITY OF NEW MEXICO

BOLIVIA OFFICE

HORACIO ULIBARRI

CHIEF OF PARTY

COCHABAMBA - BOLIVIA

MAY 1981

TABLE OF CONTENTS

	<u>Page</u>
LETTER OF TRANSMISSION	ii
UNIVERSITY OF NEW MEXICO, BOLIVIA OFFICE	iii
PREFACE	iv
INTRODUCTION	vii
SECTION I: OVERVIEW OF THE RURAL EDUCATION PROJECT I	1
Description of the Project	1
Implementation	12
SECTION II: ADMINISTRATION OF THE PROJECT	16
Organization	16
Functions	20
Summary and Recommendations	37
SECTION III: PROJECT IMPLEMENTATION BY COMPONENTS	40
Introduction	40
Component I: Curriculum	41
Curriculum Development and Instructional Materials Development	41
Bilingual Education	56
Component II: Teacher Education and In-Service Training	73
Component III: Non-Formal Education	84
Communications	105
SECTION IV: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	120

LETTER OF TRANSMISSION

This report is submitted by the University of New Mexico Bolivia Office in compliance with Article II, Part C of the UNM/GOB Contract, GOB/AID - 511-98, to the Coordinación Nacional del Programa de Desarrollo Educativo Rural (CONDER), Ministry of Education and Culture, and to the Division of Human Resources Development, (HRDD), United States Agency for International Development/Bolivia.

HORACIO ULIBARRI

UNIVERSITY OF NEW MEXICO BOLIVIA OFFICE

Technical Advisory Staff:

Horacio Ulibarrí	Chief of Party
Lydia D. Ulibarrí	Curriculum Development Specialist
Donald H. Burns	Bilingual Education Specialist
Horacio Ulibarrí	Teacher Training Specialist
César Jaramillo	Non-Formal Educations Specialist
Robert S. Gutiérrez	Radio Communications Specialist

Office Staff:

Jaime Márquez	Administrative Assistant
Sylvia T. Sonaglia	Executive Secretary
Jorge Cuba	Office Clerk - Driver

PREFACE

The following is the Final Report concerning the activities of the University of New Mexico in the Rural Education Project I (PER-I) in Bolivia. The Report, written by the technical assistance team, describes the involvement of the University in the implementation of PER-I, its achievements and shortfalls. It is hoped that the Report will provide the reader with insights about project operations; and how to take advantage of the experience gained during PER I for future projects.

There is a common tendency in the preparation of final reports such as this one, to focus on shortfalls and to pass over successes. One tends to dwell on problems which were difficult to resolve. It is often the case that parts of a project which ran smoothly receive little attention simply because they required little time or effort on the part of the project personnel. This Final Report is no exception.

While reading this report, the reader should keep in mind at all times the extremely difficult and unusual circumstances in which the project attempted to operate. During its five-year existence, PER-I experienced seven changes of government. Contrary to popular assumptions, educational systems do not operate independently of political systems. Changes in government, therefore, had inevitable impact on the operation of PER-I. Nevertheless, educators must cope with the political environment in which they find themselves. It is to the credit of the Bolivian educators who worked in PER I that they were able to continue to pursue their global objectives, in spite of the difficult conditions.

Special commendation should also be given to the leaders of the Bolivian government who, regardless of political persuasion, were united in their goal of improving the life of the Bolivian "campesino". Rural development efforts not only improve rural living conditions, but also lead to overall national economic development. It is to the credit of Bolivian government officials that they realize that an integral part of rural development is the improvement and expansion of the educational delivery system. In spite of the shortfalls which may have occurred in the attainment of all PER-I goals, it should be recognized that the purpose of the project was worthy and humanitarian. It may be said that to strive to achieve lofty goals and fall short is better than to set

insignificant goals and succeed. In short, all of those who were involved in PER-I, whether they be Bolivian officials, U.S.-AID/Bolivian personnel, or University of New Mexico technicians should be comforted by the knowledge that PER-I will have positive and lasting impact on the lives of people living in rural Bolivia.

In the area of curriculum, for example, most of the primary level grades have been provided with restructured curricular programs which include adaptation for rural children. PER-I has also created an awareness of the necessity for primary education to address the needs of a rural population. We, as a result, anticipate that repetition and drop-out rates in rural schools will be reduced. In addition to instructional materials developed for the rural curriculum, substantial progress has been made in the implementation of bilingual instructional methods into Quechua-speaking areas. In the future, therefore, rural populations should have greater access to the market economy and should have more opportunity to participate in the social and political development processes. Furthermore, bilingual instructional methods are likely to further reduce grade repetition and drop-out rates; thereby permitting a better utilization of resources available for Bolivian education. It should also be noted that to completely develop and implement a new bilingual curriculum is an extremely difficult undertaking. It has taken more than thirteen years of effort to attempt the same process in the United States; and still there is much to be done in spite of significantly more abundant financial resources and greater political stability.

The non-formal education component of PER-I, was able to achieve recognition as a viable alternative to structured classroom instruction. Once again, the non-formal education programs have been adapted to rural perspectives and needs. Strategies for communicating non-formal programs to rural areas have been developed and implemented. These programs, like those developed by the curriculum component, are expected to promote rural economic, social, and political development.

In the area of teacher education and in-service training, new methods, strategies, and curricula have been tested and implemented. Perhaps one of the most important contributions of PER-I is precisely in the area of training. Not only have teachers been trained, but also specialists in curriculum development, instructional materials development,

bilingual education, non-formal education, and communications. Whether or not these trained people continue to work in the geographic region covered by PER-I, they will no doubt contribute to the improvement of the delivery of educational services. In such a manner, PER-I should be remembered as having had a substantial and positive impact on the lives and economic development of the Bolivian people. All who were involved in PER-I should be proud of its achievements and future potential importance.

This report is submitted by the University of New Mexico, Bolivia Office, in compliance with Article II, Part C of the UNM/GOB Contract, GOB/AID-511-98, to the Coordinación Nacional del Programa de Desarrollo Educativo Rural (CONDER), Ministry of Education and Culture, Government of Bolivia, and to the Human Resources Development Division (HRDD), United States Agency for International Development/Bolivia, United States of America.

Purpose

It is the hope of the writers to give one last input to the Proyecto de Educación Rural I (PER-I) through this report. Hopefully also this report, through the structural functional analysis made of the administration of the Project, may serve in some measure to improve the organization and management of projects similar to this one.

The process being used is to make a structural functional analysis of the several aspects of the Project, especially the administrative area. A theoretical framework applicable to the area under consideration will show the degree of functionality of the process(es) used in the Project. Wherever dysfunctionality is detected, recommendations will be made as to how, given the operational conditions within the project, such a function could have been more effectively executed. This may seem like the proverbial "locking up of the barn after the horse has run away," but the assumption is that often the most profitable piece of learning is "what shouldn't have been done" in the first place or "if I were to do it again, what would I do differently." As a matter of fact, this is not the only project that the Ministry is implementing nor will it be the last. Similarly, it is not the only project that HRDD is supervising in its international extensions. Therefore, operational-situational type of suggestions will be offered. These, broader future-oriented suggestions, will be made in the administrative analysis section; the operational-situational suggestions will be made in the section where each component reports its activities and attainments.

¹This report, Rural Education I: Final Report, University of New Mexico, was compiled and written by the University of New Mexico team, Lydia D. Ulibarrí, Currículum; Donald H. Burns, Bilingual Education; César Jaramillo, Non-Formal Education; Robert S. Gutiérrez, Communications; and Horacio Ulibarrí, Teacher Training and Chief of Party.

Finally let it be understood that by no means is the team wantonly engaging in negativism. Even if there was relatively little attained in relation to what was originally expected from this project, an institutional structural-functional analysis will indicate the dysfunctionalities and will allow the bases for making recommendations.

Generalized Summary.

This project was conceived with very lofty expectations. It was based on the needs assessment in rural education made in 1973, which uncovered the myriad problems that Bolivia was facing in that area. The project as planned in 1975 was perhaps too ambitious; seemingly the hope was that through the three proposed projects (PER-I, PER-II and PER-III), all the educational problems in Bolivia would be resolved. The background documents, the "Green Book" and the "Gray Book", proposed an elaborate program which would have been difficult to implement under very favorable conditions, let alone under the very adverse conditions under which this Project operated.

The magnitude of the Project was such that few of the technicians involved at any level properly comprehended it. Perhaps about the only area properly understood was Constructions (classrooms, workshops, and teachers' quarters). The experimental aspects (curriculum, bilingual education, teacher education and non-formal education) which were the essential factors for educational change, were only vaguely understood by both managers and technicians of the project. One must emphasize that to construct buildings is easy; to change ideas and develop attitudes is much more difficult. This lack of a holistic view of the project perhaps was the greatest dysfunctionality of the Project. It was never operationally clarified at any level whether this Project was to be developmental, experimental or formative/experimental in nature.²

²Operationally, and for the purposes of this report, a developmental project is one where programs of any kind are implemented in a given situation without those programs having been field tested. An experimental project uses traditional experimental design of experimental and control groups being pre- and post-tested to measure the differences after a given treatment. We mean by a formative/experimental project, one where a given treatment, methodologies, etc., are applied to a group but through continuous formative evaluation. Whatever elements do not contribute to the attainment of a well defined objective are discarded and new elements deemed positive are introduced. The result of the process is that the final product is a much more highly refined program (perhaps very different) than the one that was initially conceived.

Because of this lack there were no clear-cut bases for defining operational objectives. It was very difficult to develop useful operational frames of reference simply because the final purpose of the Project was not well understood. This confusion affected all the components of the Project, individually and jointly. The result was that, operationally, there could be no cohesive master planning and, therefore, no coordinated efforts between and among the components. Similarly, because of this, and because of the recurrent delays in logistical operations, there could be no continuity in planning from one year to the next.

Similar problems were encountered at the administrative level. The lack of a clear basic goal for the project, to a great measure, limited the development of a functional administrative organization for the project. There was no real understanding of the flow of administrative functions; channels of communication were not clearly defined; administrators faced areas laden with administrative responsibility but with no authority to execute; and throughout the project, authority was overly centralized and too often the center of authority was not really well defined. To complicate matters further, logistics of the project never materialized until it was too late.

A situation such as this is bad enough when only one administrative unit is involved. But when that unit has to coordinate its efforts with another administrative body, such as was the case with PER-I, the results can be counterproductive. CONDER, the administrative agency of the Project, had to coordinate its efforts with HRDD, which had a monitoring role in the Project and was in charge of disbursements. Project records show that generally disbursements were late in coming. The principal reason for this was that requisitions were submitted late.

Sometimes a requisition was denied because justification for an expenditure was considered inadequate; moving from a monitoring role into an administrative role was a continuing problem. Sometimes the proper procedures had not been followed. Most often, however, disbursements were not made simply because the requisitions had not been submitted. Thus it was only a few months before the end of the Project that over half of the Project's budget was finally encumbered.

In view of all these dysfunctions, one might ask, "where was the technical assistance from the University of New Mexico?" Unfortunately,

the advisory team from the University came onto the scene about fourteen months after the initiation of the Project. This prevented the University from giving base-line technical assistance; hence, by the time the University started rendering technical assistance to the Project, most of the patterns, both at the administrative and the operational level, had been set. The legitimization and base of operation of any consulting group is the value or belief that expertise can help solve problems and the giving to the consulting group the status of "expert." In the absence of belief in expertise, some other base of operation must be provided if the advisory group is to be effective. With rare occasions, the advisory group from the University was not accorded the status of having enough expertise to help the Bolivian technicians and administrators solve their problems. Admittedly there may have been some particular areas in which the UNM technicians may not have had sufficient expertise, but the pattern of behavior on the part of the counterparts, was one of immediate rejection of any suggestions offered by the technical advisor, and one of screening off and/or denial of necessary information at the administrative level. These factors, of course, tend to render any technical advisory group rather ineffective. USAID never seemed to lend a helping hand in solving this problem (such as having the approval of the advisory team, before allowing any disbursements). As a survival tactic to meet its obligations, the UNM team felt obligated to operate not on a professional basis, but on the basis of friendship and good will with their individual counterparts. This, of course, is a very tenuous base from which to render technical assistance.

Of course one can not dismiss the adverse socio-political conditions which the project had to face throughout its history. This project had the unfortunate experience of having to accommodate seven changes in government within the five years of its existence. Every time that there was a change in government, there was a change in personnel, often from the ministry to technician level in the Project. With every change of personnel, the continuity of the Project was disrupted and the enthusiasm for continuing on the Project was diminished. Perhaps most serious in some of the governments, the Project objectives seemed to have been distorted to purely political ends.

Nevertheless, despite many formidable obstacles that the Project faced, there was much that was accomplished, especially at the technical

level and, of course, in the area of constructions. It must be said that there were many persons in the Project who worked diligently and with good faith and enthusiasm. All benefitted from the experience of development, the training in the Project, and the implementation of certain new alternatives in rural education. Perhaps the greatest attainment was the enthusiasm generated towards bettering rural education and the desire to help the campesino help himself.

As a footnote, one must explain that this generalized view of the Project will be substantiated in detail in the sections that follow. Section I gives an analytical description of the Project, preparing the base for some of the structural-functional analysis made later. Section II contains the analysis of the administrative aspects of the Project. Section III gives the report of the individual components in which the University was involved. In Section IV, a summary of goal attainments is presented along with some generalizations and recommendations.

OVERVIEW OF THE RURAL EDUCATION I PROJECT

The purpose of this section is to describe the development and implementation of the Rural Education I Project in order to lay the groundwork for the administrative analysis which is presented in Section II. A brief description of the foundation documents which laid the basis for the development and implementation of Rural Education I is presented. A summarized description of the Project objectives is given and the financing of the Project is briefly analyzed. The Project's organizational structure and administrative functions are described. The contractual obligations of the University of New Mexico as the technical assistance agent are treated in some detail. An assessment of the implementation efforts ends this section.

1. Description of the Project

The history of PER-I starts with the needs assessment conducted in 1973 and ends with the termination date of April 30, 1981 for the Loan Agreement. March 31, 1981 was the termination date for the consultant services of the University of New Mexico in the Project.

Foundation Documents

There are six foundation documents that serve as the basis for the development and implementation of this Project. These are:

1. Plan Nacional de Desarrollo Educativo. This was an educational plan developed in 1971. The plan was developed without the benefit of a needs assessment and it had little impact in the development of the Project except that the general objectives of the Plan served to give direction.
2. El Diagnóstico Integral de la Educación Boliviana. This reported a needs assessment conducted in 1973 (published in 1974) which served as the basis for developing the proposal papers for this Project. It is thorough and indicates the problems of rural education in Bolivia.
3. Proposal and Recommendations for Considerations by the Development Loan Committee. This document, commonly known as the "Green Book", is the Project paper. It delineates the parameters of the Program, sets down the objectives and

outlines the operational organization of the Project in a very comprehensive but perhaps idealistic manner. It was supposed to have been developed by a bi-national committee but because of the pressures of time to submit this Project paper to the Loan Committee, it was basically developed by the American representatives of the Committee with relatively little input from the Bolivian committee members.

4. Plan para el Desarrollo de la Educación Rural en Cochabamba. Commonly known as "El Libro Plomo", this document was to be the counterpart from the Bolivian side to the "Green Book." Like the "Green Book" this was to have been developed by a bi-national committee but because of the exigencies of time mentioned above, it was developed by Bolivian technicians with little input from the American committee members.
5. Loan Agreement AID-511-V-054. This is the official document which established the Program. It sets the loan conditions and conditions precedent for disbursement of funds, as well as the parameters of the program in a relatively flexible manner. This document, while supposed to have been based on the Project papers (the "Green Book" and the "Libro Plomo"), does not make any direct or official reference to either paper so that legally it stands by itself in reference to loan requirements, conditions precedent, and Project parameters. The flexibility in which the parameters of the Project have been stated, has led to multiple interpretations and, therefore, to confusion and disagreement as to what the goals and objectives of the Project should have been and about the direction Project activities should have taken.
6. University of New Mexico Contract GOB/AID-511-98. This document contracts the University of New Mexico to provide technical assistance to the Project. It delineates the role, duties, and responsibilities of the University of New Mexico and its technical assistance team as well as other contractual obligations. This is the document upon which the University of New Mexico team based its operations within the Project. Again, this document indicates little relevance to the Project documents, the "Green Book" and the "Libro Plomo."
7. Implementation Letters. These letters are not documents in themselves, although over the period of a given project they

may constitute a document. Basically, a letter of implementation is a bilateral agreement by which a contract is modified by realigning a project, rectifying errors that were not foreseen at the time the project was being developed, or re-directing certain aspects of a project. In this Project, implementation letters have amply been used since many exigencies beyond the scope of the Project that have necessitated realignment.

Projected Features of the Project

A basic criticism of the Project has consistently been that it was projected too broadly in scope and too unwieldy in magnitude. This criticism may well be true, but it must be said that it was geared to the educational needs of rural Bolivia, projecting and interrelating many factors that could have resulted in an effective program had more favorable overall conditions, both internal and external, prevailed. Nevertheless, one has to admit that there were some unrealistic assumptions made in developing the logical framework that, as time was to prove, were the undoing of the Project.

Project Objectives. This Project was conceived as being the first step toward the realization of the primary objective of the National Education Development Plan (Plan Nacional de Desarrollo), namely:

To establish a national education plan that would be more equitable and efficient and that would substantially and institutionally respond to the learning needs of the Bolivian Rural area.

The Project objective was stated thus in the "Green Book":

The purpose of Rural Education I is to create and test a prototype rural education system in a selected rural Department of Bolivia by 1980. It will provide experience in the design and implementation of a comprehensive scheme in a limited geographic area which will enable the MEC to implement a broad rural education reform faster and with great assuredness.

In order to attain this broad goal a program was proposed "geared to the betterment of the delivery system of education for the rural communities, and the adaptation of that education with relevancy to the socio-economic developmental needs of those rural communities." Both the broad objective of the Project and the direction it was to take, indicated that the Project was to be experimental/formative in nature necessitating a thorough understanding of systems theory in order to attain the objective.

The operational objectives of the Project were based on the needs assessment conducted in 1973 which had revealed the following deficiencies:

1. Lack of adaptation of the national education to the rural environment.
2. Lack of teaching materials.
3. Inadequate preparation of rural teachers to face the special problems of the socio-linguistic ambience of the rural school.
4. Lack of use the rural school as the center or agent for the betterment of the community.
5. Lack of coordination between the school and other developmental agencies.

Thus the following operational objectives were proposed for the Project:

1. Improvement in the preparation of rural teachers.
2. Revision of the curriculum and production of teaching materials that reflected the local needs, the characteristics of the vernacular language, and the cultural customs typical to the rural area.
3. The development of the nuclear rural school as the center of the community.
4. The utilization of the land belonging to the rural nuclear school system for agricultural purposes.
5. The improvement of school plants and school furniture.

A secondary objective was to test the effectiveness of the newly created decentralization agencies, which were developed in the prior Proyecto de Racionalización Administrativa, by including these agencies as essential parts in the development of the Project;

The Proyecto Educación Rural I will serve as a testing ground for the functionality of CEDED and its newly created dependent offices, SAED and SIDA, with which it will have a close relationship.

The objectives of the Project as stated in the "Libro Plomo" and the "Green Book" while showing discrepancies one from the other, are different still from the "objectives" as stated in the Loan Agreement. Actually, the Loan Agreement does not state objectives as such but rather lists activities that were to be carried out in the different areas of the project. The references made in the Loan Agreement to the "Green Book",

the single document upon which the loan was effected, are vague and indirect. For example, Article IV, Section 4.01, paragraph (b) of the Loan Agreement reads, "The Borrower shall cause the Project, to be carried on according to the plans, specifications, regulations, contracts, programs and other requirements, and their corresponding modifications as approved by AID." One can assume that this clause refers to the "Green Book" since all of these parameters are spelled out in the "Green Book", but the Loan Agreement does not refer to it by name.

Many other examples can be cited where the "Green Book", presumably, was used as the basis for developing the Loan Agreement. The important fact to note here, however, is that the Loan Agreement never mentions either the "Green Book" or the "Libro Plomo" by title or alludes to their existence. Therefore, the Loan Agreement, in a legal sense, stands alone as the only official document of the Project.

The same thing can be said about the GOB/UNM Contract. The text of the contract obviously reflects the text of the "Green Book" in several areas, e.g., "Work will be directed toward two critical points . . . in the rural education spectrum: (1) the system which delivers education to rural communities; and (2) the relevance of that education to the economic and social developments of the rural communities" (see page 4 for text of quotation taken from the "Green Book"). But again, the text of the contract fails to mention the "Green Book" or the "Libro Plomo." Therefore, these documents have no official standing in relation to the GOB/UNM Contract, making the Loan Agreement the only official reference document.

The Loan Agreement, in regard to the program specifications, was written with great flexibility in its terms. This was justified since it facilitated modifications and amendments without having to re-write the contract. However, such a document has its serious drawbacks if it is the only official document of the project because it lends itself to multiple interpretations and disagreement. Undoubtedly AID had the "Green Book" as the backstop document for the Project but this fact was apparently not conveyed to the Bolivian counterpart for some time. Furthermore, the "Green Book" was never translated into Spanish and the Bolivian administrators and technicians in the Project never fully understood its contents.

When the Bolivian administrators and technicians were asked to develop a master plan, they had no text other than the Loan Agreement to which to refer. Some attempts were made at finding direction by using the "Libro Plomo" but this text was not widely disseminated either. Thus the master planning went the direction that the Bolivians thought best. Because of logistical factors, the Master Plan became obsolete within months and was discarded. From that point on, planning was done on a yearly basis at the component level with little or no coordination with other components; and, with no references to the specifications of the "Green Book."

Nonetheless, USAID, without the full understanding of the Bolivians, kept using the "Green Book" as the project document to monitor activities and to conduct its yearly evaluations using the framework in that text as the reference for quantitative measurement.

Financing of the Project. The Project was financed through the Loan Agreement USAID 511-V-054. It consisted of a three-part structure. Part of funding was through a loan to the Government of Bolivia, which financed the developmental operations of the Project. Part of the financing was a contribution of the Government of Bolivia for the implementation of the Project. This funding was divided into two categories: one was an "in-kind" contribution made in the form of supplying base materials by the community members for the construction of classrooms, workshops and teacher residences; the other was an amount set aside in the national budget for the operational expenses of the Project. The third category of funding was a direct donation by USAID which was used mostly for providing technical assistance to the Project without any costs being encumbered by the Bolivian Government.

Of the Loan funds a certain amount was set aside for contracting short-term technical advisors and for sending Bolivian technicians for training in third countries. There was difficulty in using its loan funds for contracting short-term technical assistance. As a result, only a fraction of these monies were utilized.

The funds contributed by the Bolivian government were managed directly by the Bolivian government without intervention from USAID. The loan funds were disbursed by USAID according to conditions specified in the Loan Agreement. The donation funds were disbursed directly by USAID,

the portion corresponding to contractual obligations with the University of New Mexico being disbursed directly to the University according to contract stipulations.

The advisory team from the University of New Mexico had no specified role in the management of any of these funds.

Administrative Structure and Functions. The projected administrative design for this project was related to the previous project AID-511-V-51, "Educational Administration and Instructional Development Project" which attempted to (1) reorganize the structure of the Ministry in order to bring about a decentralization of functions, and (2) train administrators for the nine district offices. The second phase of the plan attempted to add impetus to the new role of the Centro Distrital (CEDED) namely, that of strengthening the educational system at the department level through its relationship with the present Project.

In the planning for reform in rural education, which was then projected in four phases, the District Office of Education (CEDED) was considered the number one institution participating in PER-I. This close relationship between CEDED and PER-I is especially evident in Section II, "Principal Components of the Project", which delineates the activities of each component in the Project. Unfortunately, the working relationship between the Project and the District Office never materialized.

Article II of the Loan Agreement states the conditions precedent to the initial disbursement, the conditions precedent to the disbursement for purposes other than construction, and the conditions precedent to the disbursement for construction (Loan Agreement, pp. 5-7). The conditions precedent to initial disbursement were (only the operational conditions precedent are listed):

- (c) A time-phased Implementation and Evaluation Plan which will include inter alia:
 - (i) a description of the manner in which MEC and other Bolivian ministries and institutions will participate in the Project. . .
 - (ii) a financial plan for the Project . . .
 - (iii) a description of how each Project element will be implemented as well as how the District Education

Development Center (CEDED) in Cochabamba will function.

- (iv) a description of the bilingual program to be employed in 20 Project school communities along with a Ministerial Resolution establishing Bilingual Education Offices in Cochabamba and La Paz.
 - (v) a description of how the MEC will establish and maintain curriculum reform and material development teams, and the Non-Formal Education Working Groups.
 - (vi) a plan to establish a teacher incentives program . . .
 - (vii) an evaluation plan . . .
- (d) Evidence of the design and establishment of an adequate administrative and accounting system . . . to administer Project funds.
 - (e) Evidence of the appointment of qualified personnel to the Rural Normal School at Vacas.
 - (f) Evidence that MEC has delegated to the Departmental Director of Rural Education in Cochabamba the authority to assign, in coordination with the Project Manager (Cochabamba), teachers to rural schools in Cochabamba.

Whether or not all of these conditions precedent to initial disbursement were met in both spirit and letter (probably all of them were), there is evidence that there was no follow-up in implementing some of the requirements stipulated in the conditions precedent, to wit: the establishment of bilingual offices in Cochabamba and La Paz; an evaluation plan (the only evaluations in the history of the project have been three conducted by AID, one conducted by CONDER and one internal evaluation conducted by the "Equipo Móvil", but none of these had been within any Project evaluation plan). One could conclude, therefore, that some conditions precedent to initial disbursement were met in spirit only and were not rigorously observed.

The same thing can be said about the conditions precedent to disbursement for specific purposes. These are:

- (a) Evidence that the MEC has established and staffed the position of Supervisor of Rural Normal Schools in the Department of Cochabamba.
- (b) Evidence of a PERT chart or similar projection showing the

critical components of Rural Education I and the relations of these components to the . . . Loan (511-V-051) and the proposed Rural Education II and III Projects.

- (c) Evidence that a . . . Project Implementation team has been established . . . including qualified specialists in teacher training, curriculum reform, bilingual education, in-service teacher training and non-formal education . . .
- (d) Evidence that the MEC has revised Vacas Rural Normal School admission policies to favor the admission of . . . sons and daughters of campesinos, and has established a scholarship program providing full financial assistance to those students.

Like the conditions precedent to initial disbursement, several of these conditions precedent to particular disbursements may have been met on paper only. One of the most outstanding examples is the time-phased master plan which was developed. Because of logistical delays the master plan soon became obsolete. Instead of revising the master plan, it was abandoned; from which point on all planning was done on a yearly basis at the component level. Another example would be that the total operations of PER-I have been carried out with virtually no conscience of Rural II (Rural III having been discarded long since). The last example is the naming of the personnel which was seemingly done along political lines and not on basis of professional qualifications.

Role of the University of New Mexico in the Project.

The role of the University of New Mexico in the Project was defined in a contract signed on December 21, 1976 between the Government of Bolivia and the University of New Mexico (GOB/AID-511-98). It was financed by Grant No. 511-0450 dated November 4, 1974, and approved by the Bolivian Supreme Decree No. 13472, dated April 6, 1976. The First Amendment to the Contract, which made certain corrections to the Contract, was dated June, 1978 and the Second Amendment dated December, 1978, realigned the duties of the technicians of the University and extended the Contract from April, 1979 to March 31, 1981 with a one-month extension for the Chief of Party to deliver the Final Report and close the office of the University in Bolivia.

The Contract specified that "the general purpose of the contract will be to assist the Government of Bolivia and the Ministry of Education

and Culture in the improvement of Rural Education in 21 nuclear school systems and the Rural Normal School of Ismaél Montes in the Department of Cochabamba." Consistent with the purposes expressed in the planning of the Project, "the work will be directed toward two critical points in the rural education spectrum: (1) the system which delivers education to rural communities; and (2) the relevance of that education in the economic and social development needs of the rural communities,

According to the general provisions of the Contract, the University team was to work with the Ministry of Education and Culture in the Department of Cochabamba in four major programs of formal and non-formal education: (1) a rural teacher education and in-service training program; (2) a curriculum reform and materials improvement program; (3) the redesigning, remodeling, and expansion of multipurpose schools and the Normal School at Vacas; and (4) a wide range of rural, community-oriented, non-formal education projects.

The specific responsibilities of the Contractor (UNM) are detailed in eighteen stipulations in the Contract and can be divided into the following areas:

A. Research:

1. Help conduct community surveys in order to obtain base line data needed to introduce specific changes in curriculum content.
2. Help develop profiles of community, school, language usage, cultural values, linguistic values, and attitudinal characteristics in order to develop bilingual education materials that could be used on a national scale.

B. Curriculum and Instructional Materials Development:

1. Help reform and write the rural school curriculum, grades 1 through 8.
2. Help establish in the new curriculum the gradual and progressive introduction of bilingual education.
3. Help in the development of bilingual materials for the skeletal curriculum of grades 1 through 3.
4. Help in the development of instructional materials for grades 4 through 8.

C. Normal Rural Education:

1. Help develop a frame of reference for the development of

a curriculum for normal school education,

2. Help rewrite the teacher training curriculum at the Normal of Vacas.
3. Help carry out in-service training for the personnel at the Vacas Normal School as well as for the personnel in the Nucleos under the jurisdiction of the Project.

D. Non-Formal Education:

1. Help develop an ample and varied non-formal education program.
2. Help the Non-Formal Education working groups establish programs of Non-Formal Education in the communities.

E. General:

1. Conduct partial evaluations in time and space of the activities of the Project, using as parameters the chronograms previously approved by the Ministry.
2. Maintain continuous consultation, coordination, and cooperation with the administrative and technical organs of the Ministry and of USAID.
3. Keep the Ministry and USAID informed of the problems, difficulties, and new requirements which present themselves during the process of the work.

This delineation of responsibilities as described in the GOB/UNM contract reflected faithfully the direction which the Project papers and the Loan Agreement intended to give the Project. However, it also pointed to some of the disjunctures, originating in the Project papers and restated in the Loan Agreement, caused by lack of proper definition and use of terms. These disjunctures necessitated modifications which were realized in large part, by Amendment 2 (dated December, 1979). These modifications realigned the responsibilities of the Contractor and deleted its previous direct responsibilities for constructions.

Projected Organization of PER-I:

Shortly after signing the Loan Agreement in December of 1975, the Ministry of Education and Culture established the office of Coordinación Nacional de Desarrollo Educativo Rural (CONDER). This office was to administer the three projected programs, Rural I, Rural II and Rural III, and at the same time, be the liaison between the Ministry

and AID/B (specifically HRDD). The office was to be vested with the authority necessary to execute all its responsibilities. HRDD was to have a monitoring role in the development and implementation of PER-I. In Cochabamba, the Project was to be managed by the Assesor Regional working in close relation and sharing authority with the Director Districtal of CEDED (specifically in the field operations of the Project). CEDED was supposed to be aided by its two dependencies SIDA and SAED. The Project was to be organized into four components: Component I, Curriculum and Materials Development with a Sub-component, Bilingual Education; Component II, Teacher Training and In-service Training; Component III, Non-Formal Education with a Sub-component, Communications; and Component IV, Constructions. Each component was headed by a Jefe de Componente who shared administrative functions with the Assesor Regional. The operational base of the Components was to be the Rural Normal School at Vacas. Operational planning was to be done at the component level with the Regional Assesor coordinating the efforts of the individual components. These operational plans together with the respective budgets were to be approved by CONDER which would pass them to HRDD for approval and disbursement of the necessary funding. The University of New Mexico team was to be composed of six members, five area specialists to be assigned, one each to the several components and sub-components (except to Component IV, Constructions), and a Chief of Party who was to render technical assistance in the area of administration and coordinate the University team. The University team was to have a purely consulting role and was not figured in the organizational chart of the Project in any staff-line position.

2. Implementation

The implementation processes in the Project had a history of irregularity and delay. The causes for these irregularities and delays are many, some going beyond the scope of the Project. Whatever the cause, any deviation from the established time line had an impact on the rest of the project unless provisions had been previously made to compensate in the form of some other contingency. Unfortunately, despite the careful planning that was done for this Project, alternative routes were not planned into the framework. Thus the irregularities and delays had a domino effect into all project areas. Project areas that otherwise would not have been affected, suffered as well.

Personnel. One of the areas suffering extreme irregularity was the provision of personnel to the Project. The plans anticipated that qualified technical personnel providing services to the Project would serve through the life of the Project. Therefore, only one orientation seminar was planned at the beginning of the implementation period for the personnel of the Project. There were continuous changes, however, of personnel at all levels. At the administrative level, HRDD changed chiefs of the division three times; CONDER changed its top administrator five times; the Jefe de Proyecto was changed twice, the UNM Chief of Party was changed three times; the District Directors had virtually been changed with every change of government. Similarly at the implementation team level, there were five directors for Component I and two directors each for Components III and IV. The only director of the component and virtually the only person with the Project since its beginning was the Director of Component II. At the technician level there were continuous changes almost on a yearly basis. Similarly, out in the field, both directors and teachers in the Nucleos were changed, so that by now, only a very small percentage of them remain who have received specialized in-service training by the Project. The same phenomenon happened at the Normal School at Vacas. At the technical assistance level, the University has sent basically two teams of technical advisors. The first one stayed two years with the Project and was replaced by the final team. The only exception was the technical advisor in Bilingual Education who remained with the team since the inception of the University's role of rendering technical assistance.

In this regard, the Project was simply reflecting the national situation which had, during the life of the Project, seven different governments with the corresponding changes in ministers of education, sub-secretaries of education, and the other lower level officers.

Buildings/Materials/Equipment. The office space used by CONDER was, for some time, situated in the same building as the offices of HRDD. This, of course, facilitated communication between the two agencies. Later this office was moved to another location when it was expanded to include the personnel of Rural II.

The office space in Cochabamba, in either of the two locations

where the Project offices have been located, was never adequate in terms of providing enough space for group work, space for doing creative work, and space for storage. The office furniture was not of the best quality and was lacking almost entirely any type of security to safeguard personal equipment and personal library materials.

The project had seven nine-passenger vans used extensively for field work but these were very late in arriving. The first one did not arrive until late in 1978, and the others arrived shortly thereafter. In the meantime, the project depended on the two five-passenger vans brought by the University. These did not arrive until late 1977. This vehicle factor alone impeded and delayed much of the field work that the Project plan had anticipated.

The attempts at getting an offset printing press and other more adequate duplicating machines than are presently available in the Project, were totally futile. As a result, large amounts of money were spent in printing books and materials through commercial printing houses. Similarly no audio-visual equipment was ever acquired for use by the Components in their in-service training efforts. The result was that most of the workshops and seminars were compelled to use the traditional lecture approach to teaching. Radio and Communications, other than a few recording devices, never got the necessary equipment to develop audio-visual materials that could have been used by the parent team (Non-Formal Education) or for developing its own radio and cassette programs. Again, where the most innovative approaches to education had to be used (in adult education), the team was compelled to use the old traditional method of lecture and a few other audio-oral, group dynamic strategies.

At the developmental level, the delays in construction caused enormous obstacles in teacher training and in Non-Formal Education. The plan called for in-service training of the professors at Vacas, for remodeling of the Normal School curriculum, and for the introduction of innovative teaching strategies. The old buildings there could not adequately accommodate this type of work and the construction at Vacas is not yet finished. The Non-Formal Education component anticipated the use of workshops in the several nucleos as the centers from which to emanate several types of non-formal education activities. To date, the workshops have not been finished and have not been equipped.

Disbursement.

The history of the Project experienced belated disbursements both in regard to national funds as well as to loan funds. Regarding national funds which were managed totally by Bolivian Government, one can only say that delays in payments of salaries caused much frustration and demoralization among the Bolivian technicians. Regarding disbursement of loan funds, which was a function of USAID, HRDD indicated that disbursements were made when vouchers were properly presented. Often there were conditions precedent not met, or lack of following proper procedures, that caused vouchers to be rejected. Very often disbursements were not made simply because vouchers were not presented. A notable fact is that the majority of the funds budgeted in 1975 were not encumbered until the last few months of the Project.

Internal and External Coordination.

A plan was proposed several times to hold weekly or bi-monthly meetings with the technicians in the Project for the purpose of coordinating plans, activities, and efforts in executing the Project. These meetings never materialized. Meetings of this type that were held, were called sporadically and without fixed agenda, for the purpose of taking care of some immediate problem or crisis. Late in the Project an administrative council was formed by the Jefes de Componente for the purpose of having them help in coordination. Unfortunately, the pattern of sporadic meetings without fixed agenda prevailed.

After the first evaluation conducted by USAID in 1978, and following its recommendations, by-monthly meetings were scheduled and conducted by the administrators of HRDD, CONDER, PER-I, and UNM. These meetings served the purpose of information sharing, and coordination. There is evidence of screening of information at these meetings; but, in general, they were very beneficial.

The Project's plan anticipated several agencies working in coordination in an attempt to upgrade the life style of the campesino and thus called for an Interinstitutional Committee. This committee never came into being until the last few months of the Project, and only then, thanks to the efforts of the Inspector de Proyecto. During the last few months, several agencies cooperated with the Project in providing health services, veterinary services, development of water systems, and several other services to the communities and Nucleos of the Project.

SECTION II

ADMINISTRATION OF THE PROJECT

Given, that neither the Loan Agreement nor any of the other foundation documents explicitly indicate that this project was to be experimental, experimental/formative, or developmental in nature, and that the primary purpose of the project was never operationally understood by the administration and technicians in the Project, the possibilities of establishing an administrative structure that would rationally exploit all the available resources and direct all its functions toward the objective(s) of the organization were indeed small.

Any institution, be it economic, educational or social action in nature, depends for its life, growth, extension, and survival in general, on its administrative structure. Generally the success, failure or curtailments of an organization are functions of the administrative policy that the institution has adopted to manage such fundamental aspects as personnel, production, and finance, as well as the diverse functions and processes that involve personal and group interaction.

One of the chronic ills, unfortunately, of education in Latin America is that educational institutions and all their systems are far removed from the basic principles of modern administration. The reason for this is that the institution is not viewed as an economic enterprise whose reversible effects, while even though not immediate, will produce substantial changes in the social and economic aspects of the groups toward which they are directed.

In general terms, modern administration can be defined as a design to pre-plan results and to control the interaction between the planned effect and the daily happenings of the broader system.

Thus, this section related to administration will analyze how this area was handled during the life of the project, taking into account effects and incidents in the quest for production and goal attainment. By no means is this section a treatise on organizational theory but rather using some of its basic premises, an attempt will be made to analyze the management of the Project in order to make suggestions and recommendations

regarding the structure and function of future projects of this nature. At the same time, the reality of the situation must be kept in focus since no institution or organization is an island unto itself. Rather all educational organizations eventually will develop formal or informal relationships with other larger organizations such as ministries and institutions involved in education in many diverse areas. All events happening in the larger system have their repercussions on the life flow of all organizations existing within that supersystem.

There are two basic premises supporting the analysis made here, the first being that the only viable way of changing an institution is to change its culture or norms; that is, to change the system wherein people live and work. A culture is a way of life, a system of beliefs and values, an accepted form of relationships and interaction. To change individual attitudes and norms, as important as this may be, cannot produce the necessary impact to revitalize and innovate the institution so that the organization will survive and develop. The second premise is that members of the organization must have a new "social conscience" along with a new self-concept. The organization must acquire a collective consciousness of its purpose and the means by which it is to attain it. This premise proposes that a social consciousness is more difficult to develop than personal awareness, but, nevertheless, is more essential for the type of world in which we live.

This introduction over the importance of administration was made because, as will be seen later, the type of administration with which the Project was managed, played a preponderant role in the life of the Project and its goal attainment. Most often administrative action was determinant in the development and implementation of the Project. Even though the necessary conditions for evolution and application had been projected, the development and implementation of the Project had to be accommodated to the rhythm of a slow administration which followed no sequential pattern nor utilized a traditional bureaucratic style.

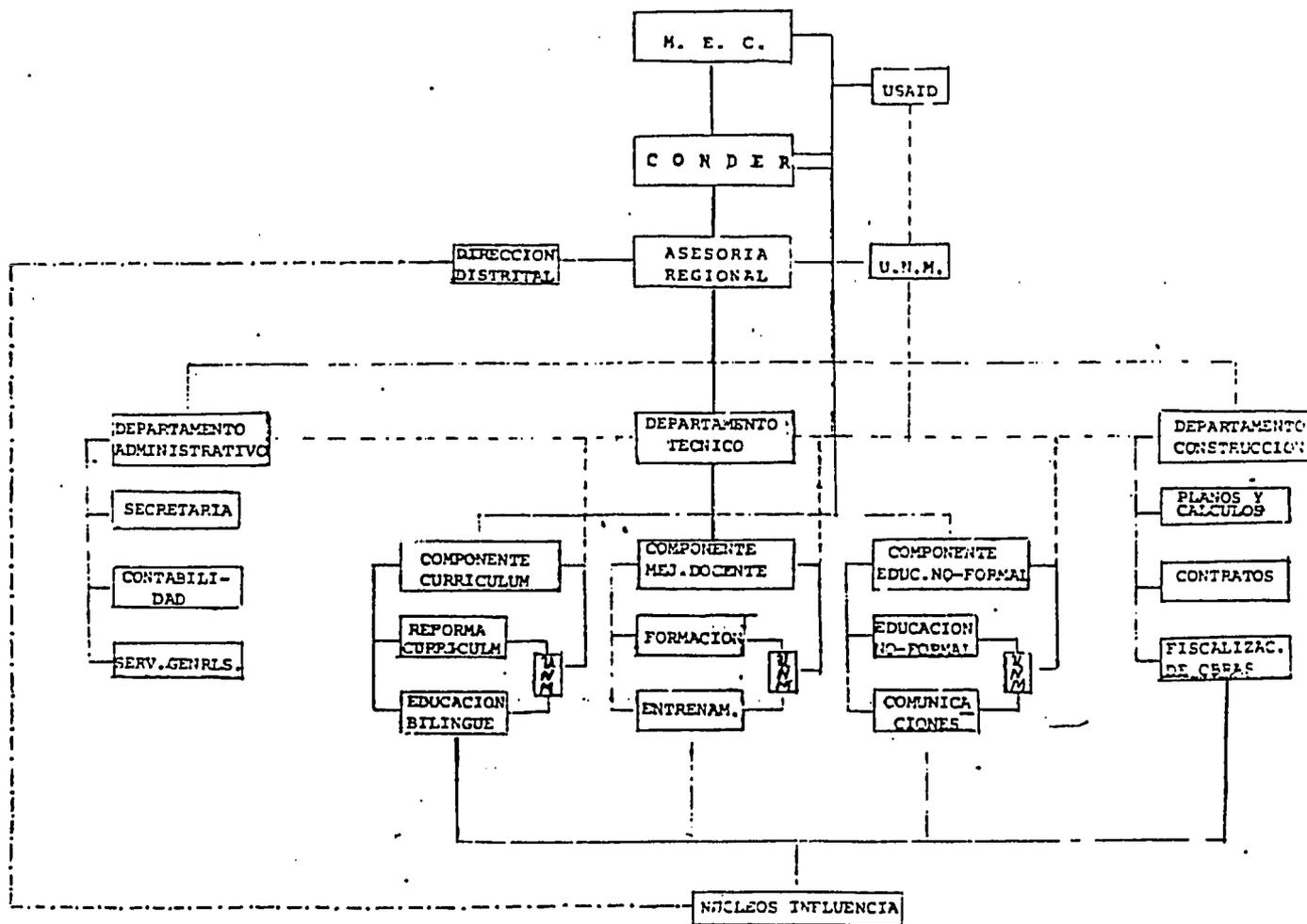
1. Organization

Structure

As can be seen from the organizational charts presented below, taking into account the established lines of relationship, probably the

major problem confronting a project such as this one, where several subunits converge in the operations of a single one, is the lack of definition of the role of each unit and the determination of the functions that each was to play in the operation of the Project.

FIGURE I
SUGGESTED ORGANIZATIONAL CHART FOR PER-I



This factor caused major dysfunctions both at the administrative level where CONDER and USAID were in constant interaction, as well as at the operational level where little or no coordination existed in the activities of the work groups within the Project.

In analyzing these aspects of the administration of the project, one has to ask, what was the role of such institutions as MEC, USAID and

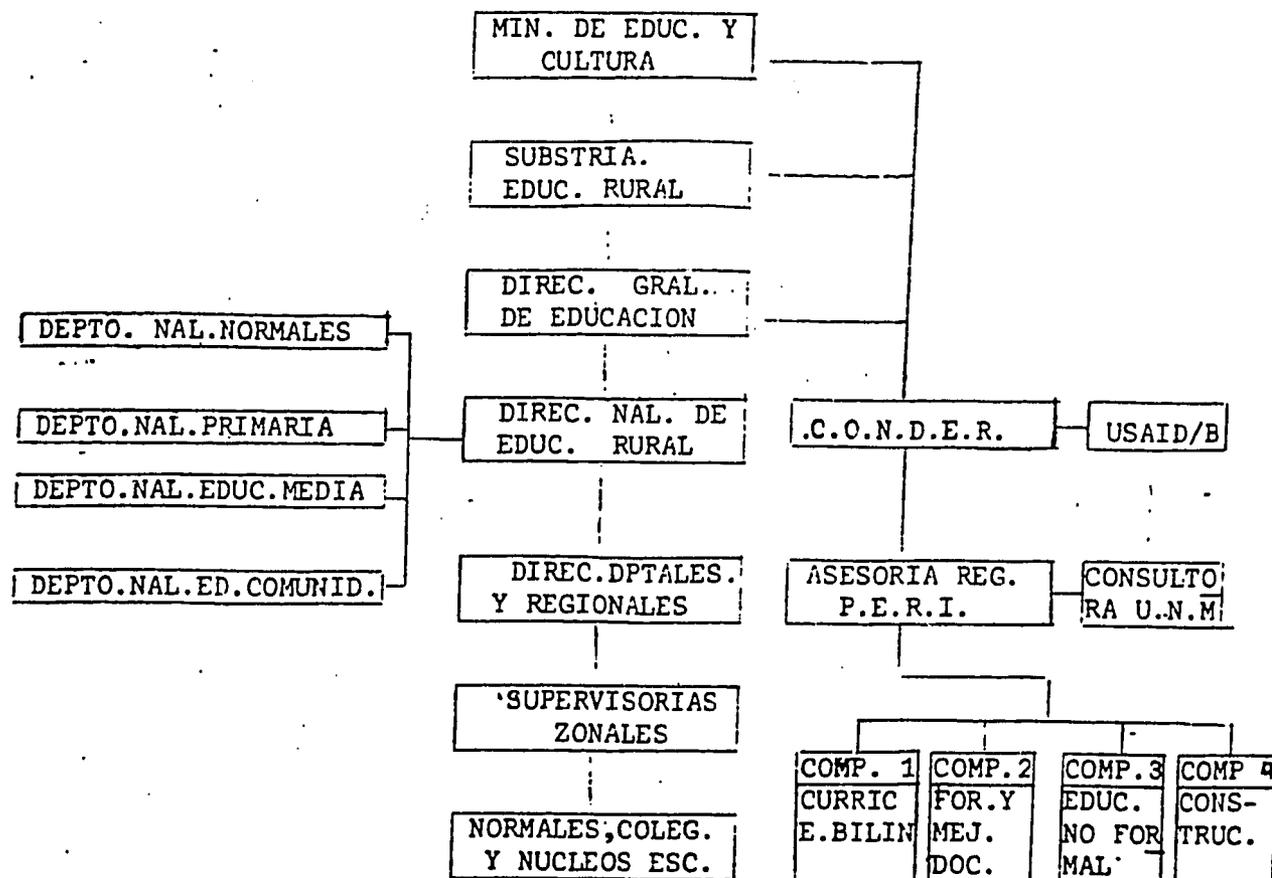
CONDER? To what extent and to what level were their actions toward the Project and their inputs projected? It is easy to conclude that, even though the foundation documents, the "Green Book", the "Libro Plomo" and the Loan Agreement, touch on roles and responsibilities, at no time are the roles of the administrators clearly defined. When one adds to this group, the University of New Mexico, one encounters vagueness as to the possible input that the University could have at the administrative level, leaving it only the role of technical assistance at the operational level.

Examining the Project itself, with its headquarters in Cochabamba, the problem of organization is augmented by the fact that it was treated like a mini-enterprise in which all matters, whether pertaining to personnel, to finances or to administration, were handled by one person, an institutional director (the Director of the Project). As will be seen later, this centralization of authority and control did not enhance a smooth flowing, much less an ideal, administration. The problem lies in the centralization not only of the administrative functions, but also in the centralization of operational areas of the Project, which created unnecessary bottle necks at both the executive and the productive levels.

Without advocating an unnecessarily extensive bureaucracy, it would have been much more advantageous to the Project to have had not only a Project Director as established by the Loan Agreement, but also, (1) an administrative assistant, (2) an operations assistant, and (3) a technician for constructions. If this administrative pattern had been established, it would follow there should have been the commensurate sharing of authority and delegation of responsibility that would have enhanced high levels of efficiency in decision-making, planning and implementation.

FIGURE 2

ACTUAL ORGANIZATIONAL CHART OF PER-I*



REF: CONDER = COORDINACION NAL. DE DESARROLLO EDUCATIVO RURAL
(PROYECTO I Y II)

PER. "I". = PROYECTO EDUCATIVO RURAL "I".

U.N.M. = UNIVERSIDAD NUEVO MEXICO

Key _____ = Chain of Command

_____ = Direct Influence

*Héctor Angulo G., "Estructura de Educación Rural", Mentor No. 1, 1979, p.5.

2. Functions

The previous analysis was passed over rather quickly since it dealt only with the static elements of the organization, namely, the structure which comprised the delineation of the chain of command, the division and relation of responsibilities, and the corresponding hierarchical levels. As essential as this factor is to an organization, an in-depth analysis can be made only by considering the functions to be performed within the established structure.

To start with, one must establish that the function(s) that an individual is to perform within an organization in part determines his personal behavior. Thus, it is important that a proper relationship of functions be present in order to have effective organizational behavior. At the same time, the personalities, perceptions, and experiences of the individuals occupying the role determine the quality of organizational behavior in performing these functions relating themselves to the functions, and to one another.

A major premise is that, to the degree that interpersonal relations within the organization are free from friction and other restrictive elements, there is organizational efficiency. Based on this premise, an analysis is made of functional flow in the Project which because of their friction-free quality, or because of their restrictive nature may have enhanced or thwarted the attainment of goals and objectives in the Project. These functions were divided into basic functions, namely, (1) power, (2) communication, (3) coordination; and operational functions, those having to do with: (1) planning, (2) implementation, (3) evaluation, (4) personnel management and (5) business management.

This analysis was made on the basis of participant observation of the technical advisors from the University of New Mexico who perhaps could be more objective than the Bolivian counterparts and have been with the Project longer than most of the Bolivian personnel. Based on their (the technical advisors) collective background and experience, a frame of reference was developed and the analysis was made accordingly. It is hoped that this analysis will help reorder other Bolivian projects in education and possibly be of benefit in the planning and implementing of Projects elsewhere which are similar to this one.

For this reason and because this report will be read not only by administrators or students of organizational theory, but by a diversified audience, the language employed is simple, and necessarily devoid of technical terminology.

Basic Functions

Communication. One of the most important processes in any organization is communication. It has been said that communication is a simple process of transmission of information from one person to another. Anybody involved in communication theory knows that the process is extremely complex since so many variables and contingencies infringe the process of transmission-reception-response. It is not the purpose of this analysis to make an in-depth diagnosis of the process itself; but rather to look generally at the function in relation to how it affected the operations of the Project. Within these general parameters it can be concluded that communication was one of the central problems in the organizational life of the Project, and it was, not an obstacle, but the number one obstacle relative to structure, process, and quality of communications in achieving organizational efficiency.

It was observed that during the life of the project, in the vertical flow of communications, there were serious gaps in communication or lack of information adequate for decision-making. What is more sobering is that communication generally flowed from the higher echelons of the hierarchy to the lower levels and hardly ever viceversa. Some of the more classical examples are exemplified:

- Communications did not have a natural flow when they emanated from the top authority.
- Some of the communications were made "under the table", which caused rumors to arise, thereby deteriorating communication and interpersonal relations.
- Generally communications or information from higher authorities were treated secretly.
- Decisions made by higher authorities or groups were never communicated in written form to have commonality of understanding and comprehension of the decision in question.
- Because communications were generally made verbally, it was left to the criteria of the receptor to give the message his own interpretation and implementation.

- Communications more often than not were not written so as not to assume responsibility regarding their inference or effect.
- There were no policies regarding communications; anyone could communicate with anyone else without regard for the functional chain of command, a factor that logically deteriorates the principle of authority.

With the examples given above, which were the norm, the University of New Mexico team experienced the same problem collaterally and jointly. Analysing the fact that the University of New Mexico, was, or thought it was, structurally in the executive branch of the organization, close to CONDER and USAID/B, the situation was more complex. Breakdowns in communications thwarted the team's effort to establish better processes of implementation, planning or the implanting of new ideas. Often the UNM team, paradoxically, was the last to know about pieces of communication or information, making it impossible to render quality technical assistance, since the decisions and/or strategies had already been defined.

In analysing the processes of communication implemented in PER-I, one has to emphasize that the system was at fault and not necessarily the individuals. As a corollary to this factor, the UNM advisory team wishes to offer advise for future projects.

- It is of extreme importance that in the planning of any project, not only must the organizational structure be determined with the objective of positioning of functions and responsibilities, but also that the corresponding flow and process of functions, such as communication and others, be included in the planning.
- In order to attain real communication in the organization, the objectives of the organization must be communicated to all levels of the system in order to avoid future misinterpretations, as was the case in this Project.
- Once a Project is started, the personnel of that organization should undergo a period of orientation and training, part of which should be training in communication theory and its application in the operation of the project.

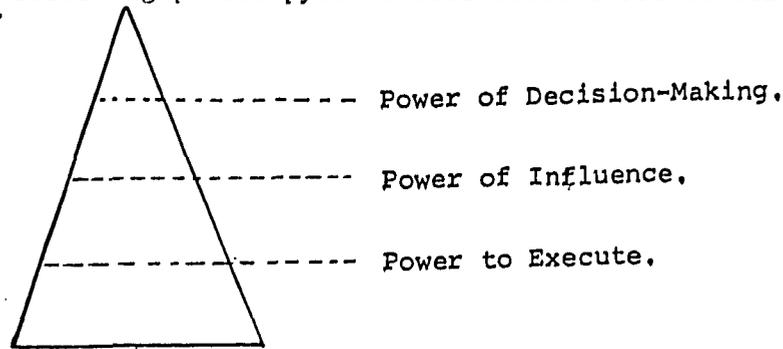
Leadership and Power. This area, which might be called "social influence", has as a central issue the question of power and how it is distributed within the organization. In and of itself and because of its social nature, power is a complex issue which invariably creates lively controversy, either because of its ethical connotations or because the study and distribution of power may lend itself to various interpretations (usually to the interests of the analyser).

The question of power has to be reconsidered seriously because of the dramatic changes that have taken place in the functioning of organizations which make the management of an organization by one individual impractical. There are many factors which contribute to making one-man control obsolete and erode the real power of the chief in most organizations, even when both the chief and the organization continue to adhere to older concepts of power and authority.

The changing role of power reinforces our criticism made in the previous section of organizational structures. It refers to the operational team of the Project and leads us to think about the pyradimic structure that the bureaucracy uses where power is centralized at the top, which creates a bottleneck in many functions of the organization, impedes rapid decision-making when the situation demands it, and annuls effective control of production.

Extending this analysis of power into the area of leadership, one finds that the centralization of power placed heavy restraints in the development of leadership especially in the work groups situated in Cochabamba. Even though the projected structure specified the functions of the directors of components, the perception of the group in general, was of a system where there was one-man control. This caused the individual members to direct their communication, activities, and requests to that one person thereby placing in jeopardy the exercise of leadership by the "jefes de componente." They saw their administrative functions "short circuited" and vulnerable to the whims and fancies of anyone involved in production activities and quality control. Regardless of what the "jefes de componente" might do, anything could be undone by the Jefe Regional, who would deny, approve or change anything any time, be it personal, technical or administrative matters, when approached by anyone of his liking.

The following powers pyramid delineates three levels of power:



According to this frame of reference, the University of New Mexico should have occupied the middle segment, namely, having power of influence, which would have permitted the team to direct their power in two directions, one flowing upward into the decision-making area, and the other flowing down to the operational level through its technical assistance operations. If this flow had been allowed, the UNM technical assistance team would have been able to fulfill its obligations as specified by the contract (GOB/UNM) in a logical and realistic manner since this flow would have permitted team members to make recommendations both at the administrative and operational levels.

The reality of the situation, unfortunately, was different. The UNM team was relegated only the role of listener and information giver at the upper echelon where decisions were made unilaterally, often without the knowledge and/or approval of USAID (the funding and monitoring agent). The failure to define clearly the role of the technical assistance agent produced obstacles of a different nature at the operational level which together with the role of listener at the administrative level, which the University of New Mexico was forced to play, rendered the technical assistance team without any real power base. This had the consequence of forcing the UNM team to function in an uncertain ambience permitting the Bolivian team to accept or reject (often without even considering the matter) any or all suggestions presented by any or all members of the team.

The truth of the matter is that there was no planning for many of these factors at the initiation of the Project and later favorable conditions were not present for a better development of factors which would have helped in the success of the Project.

Coordination and Collaboration. These two factors must be considered jointly since one affects the other. Coordination to many is the panacea for any program. Before coordination can be effected, however, there has to be engendered in the members of the organization a spirit of sound and feasible collaboration.

Collaboration is a hard term to define with precision, but it implies mutual confidence, joint definition of ends and means, and a high degree of reciprocal influence. Therefore, all organizations should attempt to develop in all its personnel a high degree of cooperative relationships, be it at the administrative or operational level, integrating the consultants or advisors into these groups.

Once the conditions of collaboration are present, one can start thinking about coordination, which is a process that can be arrived at only after there is a consciousness of what coordination is and the reason for coordinating. The term coordination also implies harmony, joint action; but never lack of freedom or initiative and, least of all, direct intervention in the program administration of the coordinated groups.

It is also necessary to clarify that an institution or person can not be coordinated but rather coordination is effected between institutions, groups or persons. Groups and institutions are coordinated to join efforts, to avoid duplication of effort, and to guarantee more efficient services.

In order to be effective, coordination must exist at three levels:

1. Internal coordination of the group (administration)
2. Coordination of similar groups (administration-service area)
3. Coordination of group activities (utilization of resources)

Given the actual conditions prevailing during the life of the Project and the nature and spirit of the theme, coordination must be treated in two aspects:

- Internal collaboration and coordination
- External collaboration and coordination

Internal Coordination. Taking into account the administrative conditions discussed to this point, which resulted from lack of planning

for the structure and functions of the system, as well as to objectives and strategies, one found the following characteristics in the work groups operating in Cochabamba:

- A bureaucratic group, managed by autocratic leadership.
- Inadequate communication and leadership caused each group (component) to consider other groups as the enemy instead of as neutral objects.
- Each group tended to see only its positive aspects ignoring its weaknesses, and perceived only the worst qualities of other groups while overlooking those groups' potentials.
- Lack of interaction and communication among groups increased the hostility toward each other, encouraged the retention of stereotypic negative ideas, and prohibited the correction of perceptive abnormalities.
- Lastly, the situation resulted in groups becoming dysfunctionally competitive between themselves and detrimental to the organization.

Attempting to operate in this closed climate, the University of New Mexico resorted to a pattern of accommodation utilizing friendship and persuasion as a means of meeting its responsibilities of technical assistance. The technical advisors in effect had to spend more time looking for strategies for inter-personal and intergroup relations than in devising educational strategies for compliance with the Contract. At the same time, perceptions toward the University deteriorated. Very often the technical assistance group was perceived as a group with which to compete and overcome, thus eliminating all opportunity to collaborate and cooperate.

In an attempt to better relations and establish an improved system of communications, the University of New Mexico utilized the services of a short-term consultant in human relations. Towards the end of 1978, however, the director of Component I and the Director of the Project withdrew support for the objective of the University and denied any kind of help in this effort.

Since all components had as their target group the Bolivian campesino, basic intent of the Loan Agreement converged on "integral development of rural education" thereby demanding close relationship of

all involved in the Project. At the same time these groups were charged to find ways and means through joint planning to correlate their efforts with one another, making the endeavor totally a joint enterprise. This phenomenon was not allowed to flourish; the consequence was a disjointed, unilateral effort by each component. This was possible only because there were no clearly defined objectives for any of the components, nor a vision of where these components should converge in order to bring about a betterment of rural education through the development of prototypic educational system for Rural Bolivia. The lack of collaboration also applied to the Component in charge of Constructions. There was little technical advise sought in developing any of the plans of the construction of schools and workshops. The dysfunctional effect can be seen in the buildings constructed for workshops which may need costly modifications to make them operational. Similarly there were serious mistakes made in the construction at the Normal at Vacas simply because there was little joint planning or collaboration.

External Coordination. The magnitude of the Project as planned necessarily required coordination with other ministries and agencies. But without the Project having the necessary power to coordinate, much of what was planned remained unfinished. At the same time, the opposite of what should be prescribed for proper coordination was actually done. The attempt was made to coordinate within institutions and persons instead of coordinating between institutions or persons.

Perhaps the following postulate presented to Non-Formal Education by its technical advisor may help clarify the issue:

"From a theoretical perspective it becomes obvious that whenever several ministries or agencies pursue the same objectives, coordinated, or even better, joint action should be realized in order to attain these common objectives. Nonetheless, in practice, it is one of the hardest phenomena to achieve for several complex reasons stemming from the needs of the role-players to the emulative tendencies of agencies. However, a concrete suggestion to move in the direction of coordinated action would be to orchestrate the departmental activities through an inter-sectorial committee. This committee should be both administrative and operational in character. The administrative aspects should be such that once any work plan is approved, every technician should be under its

jurisdiction. Otherwise the committee will become a center for discussion and will die for lack of action, since in such case, the direct line of command will still continue with each sector . . . "

This is an example, along with others mentioned in quarterly and yearly reports, of how the technical assistance team attempted to offer suggestions, implant new ideas and give new directions to the Project. But lack of power, incipient collaboration, extremely impaired communications, and the unwillingness of the administration prevented the development of an efficient organization along the lines of systems theory.

Operational Functions

In an experimental/formative project such as this one, management by objectives is clearly indicated. Management by objectives requires a decentralized system of administration simply because the principal objectives of the project are the only stable factors; while the operational objectives, whether intermediate or short range in nature, have to be continuously modified according to the findings of a continuous formative evaluation. Modification of the operational objectives are twofold: first, both the intermediate and short-range objectives and their subsequent modifications must be compatible with the long-range objectives; secondly, all objectives (and modifications) at all levels must be thoroughly known and clearly comprehended at all levels of the hierarchy of the organization.

Operational functions for the purposes of this report are defined as a conglomerate of activities, having a well-defined logistical area of operation, providing specific maintenance services to the organization enabling it to perform its other functions. The basic difference between operational functions and basic functions as defined for this report, is that an operational function is well circumscribed in its area of activities which are concrete and logistical in nature; while a basic function permeates the whole organization, the concept being an abstraction rather than a concrete action. The one, operational function, has to do with the development of processes and systems.

The operational functions treated here are (1) personnel administration, (2) planning, implementation and evaluation, and (3) business management.

Personnel Management. Regarding personnel administration, management by objectives, requires that the definition of the long-range, intermediate and short-range objectives serve as the basis for developing personnel policy. Personnel administration should attempt to maintain the "social system" of the organization in a state of equilibrium which will permit, not only the attainment of the objectives of the program, but also the satisfaction of the internal and external needs of the organization.

The important question to ask in this regard was whether there was the right type of administration to accomplish these tasks within the parameters of the Project and the exigencies of the situation. Unfortunately the answer is no.

In analyzing the history of the Project, one can readily see that in regard to personnel administration, no basic principles were followed starting with selection of personnel and including all areas of personnel management.

The Project documents specify numbers of personnel in all the areas but never allude to the qualification of the employees. Thus the implementors, namely, the administration, were left to design the job-specifications and to determine the qualifications of personnel.

As can be seen throughout the report, the problem of personnel was a central issue throughout the life of the Project. One issue was whether to involve people in the Project who had long years of experience and better preparation, but perhaps risk not having a collective commitment to the idea and spirit of the Project (they may have had only a few more years to serve before retirement) thereby, annulling the hope of extending the spirit of the Project. The other alternative was to involve young professionals, although less prepared, who could expect a long life within the profession and who could be more willing to learn from the technical assistance provided and would, because of their commitment, launch forth after the end of the Project as the new leaders of rural education. Of course there are pros and cons on each side of the issue. The extent to which the issue was considered can be surmised from the selection and placement practices used through the life of the Project.

The selection process would have been easy had there been

objective criteria embodied in policy. Not only should have the job description served as basic criterion for selection but other measurements of a psychological and social nature perhaps would have been useful since the Project required the best that could be mustered.

As best as can be detected there never was any policy for selection of Project personnel, and thus no objective criteria was employed in this process. What abounded in the selection and placement of personnel seemed to have been favoritism and political clout.

Another commentary must be made regarding the lack of compliance on the part of the Ministry regarding the number of technicians that needed to be in the Project. At no time in the life of the Project were the work teams structured according to the projections made during the planning phase of the Project, to wit: professional qualifications were not considered in selection and placement, the work teams were never up to the number specified in the plan and there was a continuous change of personnel at all levels. (This matter is treated in more detail in the report of the individual Components in Section III.)

The following areas are crucial in any personnel management program and are discussed here because of the important impact they had on the Project.

1. Job Description. A job description is an administrative tool that helps match the individual's qualifications to the task that is to be performed. The job descriptions for a program such as this should be congruent with the objectives of the project, and in relation to one another. What evolves is a map of the tasks to be performed matching the thrust of the Project. Since neither the thrust of the program nor the operational objectives were clearly defined in this Project, the task at best was formidable and at worst impossible. Thus, like the case of the objectives, the descriptions of the tasks were vague and generalized. Therefore, the job descriptions, if one could call them that, were also vague and generalized. Without this basic tool, efficient selection and placement of personnel was extremely difficult.

2. Personnel Evaluation. As a consequence of the lack of job descriptions, personnel evaluation became an impossibility at any level since the parameters of the job were not known. An exception, of course, would be that for other than professional reasons subjective evaluations could be made on the performance of an individual. Personnel were never dismissed because of an unfavorable evaluation. When realignment of personnel occurred, it was made on subjective grounds and not on professional qualifications or based on any type of standard evaluation.

3. Salaries and Incentives. Salaries are widely used as incentives either through salary schedules or through merit pay. This Project adopted an established single salary for each category, that is, a single salary base for the technician level and a single salary base for the director-of-component level, etc. This avoided many management problems but also incurred many injustices since experience, type of work, and responsibilities were not taken into account. The recommendation in this area would be that Projects such as this, establish a base salary schedule taking experience and professional qualifications into consideration. Beyond that there would be merit pay, utilizing responsibility, performance, and other operational factors as criteria for awarding such pay. This practice coupled with selection and placement based on objective professional qualifications would perhaps prove a real incentive to personnel.

An incentive built into the Project was training in third countries. This proved to be a political football and lost its quality of incentive.

Besides the problems already noted in the management of personnel, one must note that the constant changes in personnel caused extreme insecurity among Project employees, especially, when the rhythm of change usually was a complete sweep at the technician level once a year. These changes, strongly influenced by the unions, could hardly enhance commitment to the job and the spirit of the Project. Conversely, the personnel turnover resulted in an extreme amount of irresponsibility in job performance.

The constant changes in personnel within the Project presented a formidable problem to the University of New Mexico technicians in that there could be no continuity in their rendering technical assistance. As was stated, selection and placement were seemingly not made on professional qualifications. Every time there was a change of personnel, the UNM technician would have to start anew the training and orientation he had given the previous group. This caused a great loss of time and thwarted the progress of the Project through a sheer lack of understanding of what was going on.

The field personnel were also constantly changed which proved to be very detrimental to the progress of the Project and to the attainment, at least in some small measure, of its objectives. Regarding the progress of the Project, this constant change prevented continuity to the field work necessary to accomplish what the Project intended to do, develop a prototypic system of rural education. Personnel trained by the Project were moved to non-project schools. Teachers trained for some speciality, e.g. bilingual education, were moved into grades that were not using the bilingual modality. As a side note, out of 305 technical teachers (home economics, agriculture, etc.) trained by the Project by 1980, only 28 remained within the scope of the Project. This factor was one of the major impediments in the Project to the attainment of what had been hoped.

As a last commentary in the area of Personnel, it must be said that the personnel appointed as technicians in the Project were not always the best available, professionally speaking. There were, of course, exceptions. Where the lack of objective selection procedures caused the most harm was in the quality of personnel selected. In any enterprise, as the quality of the personnel is, so is the quality of the product. This generally low quality personnel (in relation to the job to be done) produced stagnation which prevented those few able individuals who could perform, and wanted to perform, from achieving superior work.

Planning, Implementation and Evaluation. It is not necessary to dwell on the importance of planning since this function is well understood. This report attempts to analyze the processes of planning used in this Project.

To start with, a fundamental flaw at the initiation of the Project was that no master plan with clear-cut measureable objectives was established within the parameters set in the "Green Book" and the "Libro Plomo" that would serve as the umbrella for the Project. Such a master plan, using a PERT time line, would have helped each component not only to achieve each one of its objectives, but would have indicated the points of convergance of the components, one with another, in the quest to achieve the Project objective of a prototypic system of education for Rural Bolivia. This PERT chart would have enabled the determination of a critical path and alternative routes. As was planned and implemented, this project had a fixed route with a vague time line. Any blockage in any sector of the Project virtually paralyzed the whole Project. An attempt was made at PERTing the project but the effort emphasized the final events and not the sequential processes leading to them, making it difficult to administer, evaluate, and reprogram the processes.

An attempt was made at developing a master plan (Gant) but it provided no alternative paths. Logistical delays made it obsolete in a very short time. As has been stated before, the planning henceforth was done on a yearly basis at the component level with no collaboration or coordination between components. Often the plans were repetetive, at times incongruent, geared more to the performance of isolated activities than to attainment of goals, and usually had little relevance or sequence to the previous year's plan. To this, one must add that the yearly operational plans never received necessary review or criticism; nor did their approval or disapproval ever reach the operational levels. The Jefe Regional would only notify the respective group that their plan had been approved, without indicating commentaries or conditions of approval.

The suggestion made by the technical advisors that specific plans for the several activities covered in the general operational plan be included with the general plan was too often dismissed as being only typically bureaucratic behavior. It was only towards the end of the Project, specifically August, 1980, that CONDER assumed the position of demanding that its personnel read the documents sent to it and provide expeditiously the necessary criticism so vitally needed. At this time an attempt was made to establish a business-like administrative dynamic, but because of previous conditions and the patterns of organizational

culture so well engrained, it was well nigh impossible unless an exhaustive analysis be made and new patterns established.

Thus it was to be expected that as a result of what has been noted above, planned activities would consequently be delayed because of the delay in disbursement for these activities (from CONDER to PER-I). This happened despite the fact that each major activity had a line item in the budget of the general plan which had already been approved. The pattern was that for each activity or event which had been budgeted in the general plan, the specific plan together with a detailed budget had to be submitted for approval anew by CONDER. Needless to say, this was a time-consuming, repetitious process caused by lack of coordination on the part of CONDER.

At other times, implementation of the plans became nearly impossible because of the numerous strikes, roadblocks, and other civil disorders perpetrated by unions. Field activities were often delayed due to a lack of financial resources to buy gasoline and cover per diem costs, a responsibility of the Bolivian Government as part of its contribution to the Project. This factor was aggravated by the lack of coordination of field activities between project components.

An area that was not adequately covered in the planning for the implementation of the Project was the question of adequate orientation and training in evaluation. Through the life of the Project only one feeble attempt was made at conducting an internal evaluation and never were there any partial evaluations made as the project documents stipulated. It would be academic to think about the benefits that could have been derived from continuous evaluations. It is difficult to understand how a project such as this could carry on without any thorough evaluation. There were some attempts at evaluations made of each workshop or seminar but these neither stood the test of reliability nor of validity despite the fact that the same basic instrument was used to evaluate all short-term courses.

As mentioned before in this document, HRDD conducted three yearly evaluations of the Project. The logical framework developed in the "Green Book" was used in an attempt to get quantitative measurements. These evaluations had questionable relevance or validity since, as

repeatedly stated in this report, the Bolivian personnel did not know the contents of this document and never took it into consideration in the implementation and daily operations of the Project. The evaluation design lent itself primarily to acquiring mostly negative data since the basic instrument, actually an opinionnaire, asked everybody to evaluate every aspect and function of the Project, even if the subject was ignorant of the area. In the type of socio-psychological climate that permeated the Project, this approach to evaluation actually became an act of vindictiveness on the part of the people being evaluated towards one another. Naturally the data was spurious (unknown to the evaluators) but was nevertheless analyzed. Conclusions were drawn, and recommendations made. With the exception of the removal of some administrative personnel on the recommendation of the first evaluation conducted in 1978, these evaluations had little impact on the everyday operations of the Project.

The University of New Mexico was charged in the Contract (UNM/GOB) to conduct partial evaluations in time and space for the purposes of proposing modifications to the Ministry. It never conducted any evaluations of this type. As has been stated before the University team had succumbed to operating on the basis of accommodation and friendship because it had no choice. Thus it had to be very sensitive to the socio-psychological climate of the Project. Regarding evaluation, two factors emerged: one was a complete ignorance of the nature of evaluation and proper evaluation procedures, and the other was a fear, bordering on psychosis, toward evaluation. The perception was that evaluation was a means of reward, punishment, and retaliation (perhaps stimulated by the social conditions prevailing during the life of the Project), instead of an instrument that could indicate the degree of goal attainment and afford reassessment of objectives and activities. (Perhaps this single factor stood as the major obstacle in not allowing this Project to become trully an experimental/formative endeavor as the Project goal demanded.) Given the precarious operational base of the University and this distorted perception of evaluation, it was extremely difficult for the University to conduct any type of evaluation, without destroying itself in the area of rendering technical assistance.

Business Management. It is not the purpose of this analysis regarding management of funds, to come up with any recommendations for procedures. Any type of expenditure of loan funds has to be made within

the procedures established by the lender for the borrower. The borrower must comply with a set of procedures established by his own Government. Often there is a clash between the two sets of regulations in the case of loan funds. It would be advisable that in the planning of a project, this factor be carefully considered and the procedures be clearly understood by both parties in order to avoid future delays. It would have been convenient for both parties to have had the latitude to modify their respective set of regulations so that a mutually convenient set of procedures could be developed and implemented for requisitioning, disbursing, and spending.

Regarding delays in requisitioning, it is surprising to note that in a Project of this size whose budget was over nine million dollars, at the end of the first year of operations only \$150,000 of the funds had been requisitioned and disbursed. As the disbursement records of USAID/B indicate, the lion's share of the loan funds were encumbered only months before the termination of the Loan Agreement.

TABLE I
RECORD OF DISBURSEMENTS
COMPTROLLERS OFFICE

Date	Committed		Disbursed		Not Disbursed		To be Committed	
	Amount	%	Amount	%	Amount	%	Amount	%
12-31-80	3,098,829	62,9	2,735,137	55,5	2,188,863	44,5	1,825,863	37,1
12-31-79	2,476,409	50,3	1,856,837	37,7	3,067,162	62,3	2,447,591	49,7
12-31-78	1,534,742	31,2	932,384	18,9	3,991,615	81,8	3,389,257	68,8
12-31-77	770,000	15,6	375,051	7,6	4,548,949	92,4	4,154,001	84,4
12-31-76	150,000	3,0	150,000	3,0	4,774,000	97,0	4,774,000	97,0

The disbursement factor raises serious questions as to the capability of the Borrower to actually spend large sums of money. Assuming that there is the ability to spend on the part of the Borrower, there are many other intervening factors that may erode the capability

to spend large sums of money. Such factors as availability of equipment and materials to be bought, flow or investment capital of potential contractors, the prevailing regulations and politics of contracting, and implementing capabilities at the operational level strongly impinge on the capabilities of the borrower to program large expenditures. Also fiscal experience of the administrative unit enters into play in the capability to spend. In Bolivia, for example, while the Ministry of Education and Culture enjoys the largest allocation of federal funds, approximately ninety-nine percent of these monies are encumbered for salaries. Looking at this being the track record of fiscal management, one should not expect that this administrative unit would have the background to program and expend large sums of money within a programmed time-line.

It is recommended, therefore, that before effecting a loan of this magnitude, the fiscal experience of the administrative unit(s), the politics of contracting, the availability of materials, and any other factors likely to impinge on the spending capability of the administrative unit charged with the expenditure of loan funds be analyzed in depth.

The complaint on the part of the Bolivian counterparts had constantly been that USAID delayed the disbursements. The records of USAID indicate that disbursements were made within a reasonable period after the requisition was filed. Too often the requisitions were not made and naturally disbursements were not possible. Sometimes disbursements were not made because the requisitions did not comply with proper procedures (e.g. bidding); when all the conditions were met the disbursement was made. This is a case where ignorance of proper procedure may have played a part or incompatibility of two sets of regulations were functioning in the situation. The recommendation mentioned above seems, therefore, justified.

Regarding expenditures, USAID had a monitoring role in this function. In this Project for whatever reason, there seemed to be a lack of vigor in monitoring on the part of USAID. It is advisable that an expenditure program be developed using a time-line. The monitoring agency then has a viable frame of reference for its monitoring functions. There should be some compliance features built into the agreement in order to insure proper and timely spending. Otherwise the logical

framework developed at the planning stage of the program is likely to disintegrate because of unnecessary delays in expenditures and implementation.

3. Summary and Recommendations

No attempt was made to go into detail in making this analysis of the structure and function of the administration of the Project. Rather, in the opinion of the UNM team, the most essential administrative aspects of the Project were analysed to give a fairly accurate view of how the Project was managed. As a conclusion, all the members of the team are unanimous in saying that if the administration of the Project had been based on effective sound principles, it would have been more effective. This factor would have had a very positive impact on the productivity of the rest of the Project.

The conditions precedent projected much of what had to be done, but once again it must be stated that there was a possibility that many of the conditions precedent may have been met on paper only (and were not followed up) and that many of the essentials of good management were missing. It has been noted also that there seemed to be a laxness in the monitoring functions. Because of this, much of what should have been done initially, was left undone, thereby letting loose a series of latent dysfunctional consequences. If all the exigencies of the conditions precedent had been vigorously met, most probably the Project would have had a better chance at success. One must recognize, however, the qualitative factors involved in conditions precedent. For example, the conditions precedent call for an administrator of the Project and a qualified administration. "Qualified" is a relative term and acquires meaning only if criteria are specified.

Without belaboring the point, the recommendation to be made is that USAID in its role of monitor be more alert and demanding that conditions precedent be met in actuality. Within this context, it also is recommended that no assumptions be made regarding conditions precedent but that clear objective criteria be used in operationalizing them.

Regarding the role of the technical assistance agent, the text

- 1 -

shows that it never was relegated the status of expertise by the Bolivian counterparts which debilitated its position, thereby forcing the team to succumb to accommodation and render technical assistance on the basis of friendship and good will. It may be true that some of the individuals sent by UNM and accepted by USAID and CONDER, may not have had qualities needed and that no one team member could offer quality technical assistance in all situations. It must be recognized, however, that the pattern of behavior of the Bolivian counterparts was often one of rejection of most suggestions made by the technical advisors.

Again without belaboring the point, the recommendation to be made is that the role of the technical assistance agent must be clearly defined and understood by all parties. In the absence of a belief that expertise can help solve problems and in the presence of subjective denial of technical advisor expert status, support must be given by USAID so that the expensive technical assistance not be rendered ineffective, and thereby go to waste.

Regarding the administration of the Project, the recommendations included in the analysis above have little that can be added at this point. There is one factor, however, which was mentioned but needs to be emphasized since it permeated the Project, perhaps creating a negative climate. Cultural centrism, socio-centrism, and ego centrism are not peculiar to Bolivian society. All cultures and societies have them to some degree or another. However, it seems that these three characteristics are pronounced in the Bolivian socio-cultural complex. Seemingly forever, the norm in evaluating any suggestion was that it was foreign, "foráneo", and alienating "alienante" and, thereby, something to be rejected. In assessing any individual who was not Bolivian, immediately he would be classified as being ignorant of the reality of Bolivia, "No conoce la realidad Boliviana." In dealing among themselves, Bolivians would seldom listen to one another saying that the other person did not know what he was doing, "qué sabe ése."

The recommendation, which is vague because of the nature of the subject, is that over and beyond establishing an effective administration based on sound principles, the socio-psychological climate be recognized as an important factor in any organization and must be attended to in order to be able to create an atmosphere of collaboration and cooperation.

SECTION III

PROJECT IMPLEMENTATION BY COMPONENTS

In the previous Section a general analysis was made of the Project's administration. To some extent it could be said that it was generalized since it did not take into account all the details but selected only salient and representative aspects of the administration in order to give a fairly accurate picture of the progress of the Project. In this section an account is given of each component of the Project in which the University of New Mexico assumed responsibility for technical assistance.

Unlike the previous two sections of this report which were written as a team effort, each technical advisor assumed the responsibility of writing the section on his own unit. They were:

Lydia D. Ulibarrí	1. Curriculum and Materials Development
Donald H. Burns	2. Bilingual Education
Horacio Ulibarrí	3. Teacher Educational and In-service Training
César Jaramillo	4. Non-Formal Education
Roberto S. Gutiérrez	5. Communications

Each section contains (1) a short historical account of the component or sub-component, (2) an account of the activities of the unit, (3) the achievements of the component, (4) an account of the restrictive forces that the unit encountered in its efforts at goal achievement, and (5) recommendations of a general type for application in other projects of this nature, and specific recommendations related to the continuation of this Project. The order in which these variables are presented in each section varies from technician to technician; each was allowed to compose his/her section without any restrictions. The individuality of each technician is reflected in format and style.

1. Curriculum and Instructional Materials Development

This component was charged with the responsibility of rewriting (reforming) curriculum for grades 1-8; to develop instructional materials for grades 1-8; to provide orientations and in-service training to

participating teachers, principals, and area supervisors; and to collaborate in orientation and training workshops for the professors and students at the Rural Normal School "Ismaél Montes" at Vacas.

The reformed curriculum and instructional materials developed would be the basic program in the prototypic rural educational system that the Project was attempting to develop. These were to be designed for appropriateness and relevance to the culture and needs of the child residing in Rural Bolivia. The curriculum and materials were to be initially at a regional level finally the initial prototypic curriculum would be implemented on a national scale.

Historical Review

This component was divided into a curriculum and instructional materials development unit and a sub-component for bilingual education. The curriculum and instructional materials team was supposed to develop curriculum and instructional materials for grades 1-8. The Bilingual Unit was supposed to use the "skeletal" curriculum grades 1-3 prepared by the Curriculum Development Team, adapt it to a bilingual modality and prepare primary level textbooks for the first three grades using bilingual education techniques.

As can be seen by these provisions, the projection was that the two units function as one component working hand in hand. Almost immediately, however, a disjuncture developed between the two units. The Curriculum Development Team did not agree with the theoretical premises postulated by the Bilingual Education Team and refused to develop a "skeletal" curriculum, and proceeded to develop a "modified" curriculum and corollary instructional materials. The Jefe of the Component did not recognize the experimental nature of the Project and would not violate Bolivian law by reforming the curriculum. Thus the revising of the curriculum took the form of introducing activities within the rural socio-cultural context to the national curriculum (Planes y Programas). The Bilingual Education Unit proceeded to develop bilingual materials for grades 1-3 without the benefit of a curriculum to guide it.

In part this ill-fated and unfortunate controversy was caused by a degree of ignorance or misunderstanding of the major project documents and the primary thrust of the Project, but primarily by the

obstinacy of unit heads and technical advisors, namely, the Director of the Component, the sub-director of the sub-component and the two respective UNM technicians, each of whom held their own interpretation of the Project's objectives, the component's responsibility and what bilingual education should or should not be. In part, the disjuncture was also caused by lack of proper definition and use of terms such as "rewrite", "reform", "restate", "reformulate", "adapt", "reformed curriculum", and "skeletal curriculum." The lack of definition of these terms used intermittently in the Project documents, caused serious confusion in trying to operationalize them to delineate activities. In part the rift may have had political overtones in that it was nothing more than a reflection of the wide-spread opposition to bilingual education on the part of education administrators.

Whatever the causes, the results of this controversy were very detrimental to the progress of the Project since the heart of an educational system is its curricular program. In particular this controversy can be singled out as being one of the main causes for the Component not attaining its objectives. Too much time and effort was wasted by the Curriculum Team in developing a "modified" curriculum and producing its corollary materials for grades 1-8, when it should have developed a "skeletal" curriculum (basically stating objectives and developing scope and sequence) and gone on to its primary job of developing an integrated curriculum and producing the corollary instructional materials for grades 4-8. The Bilingual Team found itself strapped without a curriculum to produce materials and without a base to formulate a bilingual modality.

Regarding teacher training, the curriculum controversy produced much confusion. In the several workshops held in the name of the Project, one team would tell the teachers that the "reformed" curriculum was the Project's curriculum, the Bilingual team would tell the teachers that bilingual materials developed by the unit comprised the school program, and at Vacas the graduating teachers came out with a smattering of both but mostly oriented toward the traditional Plans and Programs. Thus it was not unusual that in some of the larger nucleos at the same grade level one would find one teacher using the reformed curriculum, in another the bilingual program, and in another

the traditional program with perhaps a smattering of the former two.

Several attempts were made at bridging this gap, but all proved to no avail. The principal attempt was when, with the direct intervention of HRDD, the UNM technicians of both units were asked to develop a plan for the integration of the two units once again. The response to the resulting plan was a tempestuous rebuttal on the part of the Director of Component I and the sore opened into a wound. Another attempt was made at the time of the extension of the UNM/GOB Contract in April of 1979. In Amendment No. 2 of the Contract, the duties of the Contractor were realigned and the responsibilities of the technical advisors in each area were made more specific. Here the document goes back to a "skeletal curriculum" to be developed by the Curriculum Unit and the Bilingual Team adapting it to a bilingual modality. The contractual stipulations never sifted down to the operational levels of the two units and for all intents and purposes, the rift continued as if no attempt at closing it had been made. The Curriculum Development Team kept at its task of developing curriculum and the Bilingual Team kept on writing bilingual materials with no collaboration, coordination, or dialogue between the two units.

With the delays experienced by the project of one kind or another, but especially, the delays caused by the continuous change of personnel within the Curriculum Development Team, it became obvious that the curriculum for grades six, seven and eight could not be developed before the termination of the Project. The decision was made to hold the Curriculum Development team responsible for development of curriculum for grades 1-5 and development of materials for grades 4 and 5.

The original design of the Curriculum Team called for a Primary and Intermediate Education Reform Commission (Grades 1-8) comprised of seventeen Curriculum Reform Commission team members, ten Nucleo Directors, four Rural Normal School professors and three Ministry representatives. The upper grades Material Development Team was to be comprised of six members chosen from the Primary and Intermediate Curriculum Reform Commission and was to be responsible for developing the instructional materials for grades 4-8. These plans were never realized. The history of the Component reflects a fluctuating number of team members. The

Unit saw four different consecutive teams during its life on the Project. Each time a team member would be appointed for a short term. Often a technician being assigned to the team was actually unemployed and was waiting to find another job or was in between jobs (Political alliances shifted continuously with the several changes of government. Directors and supervisors would take jobs in the Project while waiting for the political winds to shift). A tactic continuously used was when one attacked the Project viciously, in order to placate this dangerous "enemy" of the Project, he would be hired into the Project. With rare exceptions, one can say that the appointment of personnel into the team was done directly or indirectly on political grounds, with little or no consideration for professional qualifications.

As a result, the quantity and quality of production in the Component suffered greatly. Even though the technical advisors had not really been able to implant a design for the development of the new curriculum (the design used was the traditional national program), they at least would not accept slipshoddiness. The work then fell on a few individuals since the other team members often neither had the training, the knowledge, nor the experience in primary education curriculum. With the exception of four members in the last team, none of the team members throughout the history of the Component had any training in curriculum development, a very specialized field to say the least.

The yearly personnel changes also had an adverse effect on production. The Component operated during its existence under five different directors and four different teams of members. The instructional materials specialist was transferred out of the team to handle the Project's duplicating office, leaving the Curriculum Unit with its vital services for the production of instructional materials. His replacement was named five months later to serve on a temporary basis (in between jobs). When named director of a Nucleo, he left the Project without having produced any instructional materials for the fourth or fifth grade as he was supposed to have done. At the time of the writing of this report, the team had been reduced to four members. The continuation of the Component's activities has not been clarified and all work is at a standstill.

Regarding University of New Mexico personnel, the Component has

had three different technical advisors. The first one arrived in May, 1977 and resigned from the Project twelve months later. The second technician arrived in July of the same year and left the Project nine months later. The present technical advisor arrived in May, 1979 and remained with the Project until the ending date of the UNM/GOB Contract, March 31, 1981.

The conditions described above clearly indicate that in a project of this nature there is a need:

1. To have all project documents specific and in agreement as to the purpose(s) of the project, implementation, design, and evaluation procedures.
2. To have all project documents define and use the same terminology.
3. To define clearly the legal status of each project document.
4. To define clearly the monitoring procedures to be used and that these be zealously implemented.
5. To define clearly alternatives to meet unforeseen circumstances at the operational level.
6. To define clearly the role of the technical advisor.
7. To provide stipulations for the continuity of the technicians working with curriculum development in order to have continuity and optimum lasting benefits derived from the training received and experience gained while working in a Project of this type.

Activities

There is very meager documentation as to the activities carried on within the curriculum division of the Component for the period of April, 1976 to May, 1977. The director of the Component assumed his position on April, 1976 and together with the rest of the Project personnel, carried on planning activities, conducted surveys, and held some orientation seminars for participating teachers. The first University of New Mexico technical advisor joined the Component in May, 1977, the curriculum team was organized in July, 1977.

The first curriculum development team included six Bolivian technicians, the director and the technical advisor. After a period of orientation, the team produced the first grade curriculum and started

working on the corollary instructional materials. They developed teachers' guides, manuals, reading charts, physical education and music manuals, as well as a series of small texts containing collections of poetry, riddles, stories and games for oral language development. These materials were later finished by the second curriculum team.

The first grade curriculum developed was a "modified" curriculum and was more extensive than a "skeletal" curriculum should be. It adhered very closely to the existing national curriculum Planes y Programas, with some structural changes and modifications for a rural environment. This curriculum is recommended for a Spanish-speaking child, but it is not adequate for a Quechua monolingual child since it has no techniques for teaching Spanish as a second language. Given the socio-cultural environment of the target population, this curriculum should have been strong in second language teaching techniques for Spanish.

As stated previously developing a "modified" curriculum consumed more time than developing a "skeletal" one. This factor threw the time table of the Component askew. The rift between the Curriculum Development Unit and the Bilingual Team intensified as time went on to the point where there virtually was no communication between the two. As a result, there was much duplication of effort and no relationship between the curriculum developed by one team and the materials produced by the other, as had been the original intent of the plan. The curriculum development team continued developing curriculum and started the development of corollary instructional materials for this curriculum, while the Bilingual Education Unit continued producing materials without a curriculum to which to relate them.

The Curriculum Development Team participated, along with the rest of the Project personnel, in the Seminar for Revising the Normal School Curriculum held at Caracollo, with the purpose of providing input from the curriculum design perspective into the teacher training program being designed in the Seminar. Ignorance of or misinterpretation of Project documents caused the seminar leaders to reject the Team's suggestions, limiting the team's participation to only an exposition of its activities in developing the first grade curriculum.

After completing the first grade curriculum, the team worked on plans for developing the second grade curriculum and started the initial

- 1 -

work. However, the team was disbanded and a new team was organized on July 2, 1978. In the meantime, the University's technical advisor resigned in May. His replacement arrived in July, 1978.

The second curriculum team was composed of five technicians, the Director of the Component and the UNM technical advisor. After some orientation and development of work plans, the team finished the first grade instructional materials, then developed the second grade curriculum. Again this second grade curriculum does not include second language techniques making it inadequate for the Quechua-monolingual child. It seems that there was always resistance to considering and including this feature into the program because of the continuing rift between the Curriculum Unit and the Bilingual Education Unit.

The team also collaborated in the orientation and training seminars held at the Normal School at Vacas for the Professors and graduating student teachers for the purpose of (1) acquainting them with the new first and second grade curriculum and (2) training them in the use of the instructional materials. These seminars were very instructive. Unfortunately, some of the student teachers lacked the preparation to understand the theoretical premises and methodologies of the new "modified" curriculum.

Initially six schools were using the Bilingual Education materials, while the other sixteen were implementing the "modified" curriculum. In an attempt to stop the rift between the Units in the Component, the UNM technicians were asked in July, 1978 to develop a plan for integrating the two units as had originally been anticipated. The plan was presented in November and called for the extension of the Bilingual Program to all the Nucleos in the Project with the understanding that the Bilingual Unit adapt the first, second, and third grad curricula to a bilingual modality. This proposal for the extension of the Bilingual Program was vehemently rejected by the director of the Component who then resigned. Nonetheless, the plan was accepted and the bilingual program was extended to all the Nucleos under jurisdiction of the Project. The Bilingual Education Unit was supposed to later adapt the first, second, and third grade curricula to a bilingual modality.

A new director of the Component was named and assumed office in January, 1979. He had recently served as a technician in the Non-Formal

Education Component.

In the meantime, a "follow-up" team (equipo de seguimiento) consisting of three members had been named in November to do on-site, in-service training, helping to implement the new curriculum. Because of logistical problems caused by the extension of the bilingual program to all the Nucleo schools in the Project (over the protest of many communities and administrators in the District), this team was not operational until May, 1979, when it was incorporated into the Curriculum Development Team.

On May 28, 1979, the third UNM technical advisor joined the Curriculum Development Component (after the resignation of the second UNM technical advisor). The third technical advisor remained with the Component until the end of the UNM/GOB Contract.

The third Curriculum Development team which was named in early May of 1979, consisted of eight technicians, the Director and the Technical Advisor. The Director and Technical Advisor conducted an orientation workshop for the team members. In that workshop the plans were drawn for the development of the third grade curriculum. Also at that workshop, the Technical Advisor, basing herself on the Project documents, questioned the advisability of continuing with the same format that had been used for the first and second grade curriculum. Her recommendation was that the third grade curriculum be developed on a "skeletal format" since the Bilingual Education Unit was to adapt that curriculum along with the ones for first and second grades to a bilingual modality. She explained that a skeletal format required only the defining of objectives, and a scope and sequence of skills and concepts. It was pointed out that the skeletal format could be done for all curricular areas, thereby saving much needed time (the Unit was already about two years behind schedule). This recommendation was rejected on the grounds that:

1. All data available indicated an extremely high desertion rate by the end of the third grade. For that reason parents and community leaders were demanding that the children be taught in Spanish the first three years.
2. Children using the bilingual materials during the first two years of the implementation of the Bilingual Program were

leaving school without having learned to read and write in Spanish, and without having any math skills.

3. Since the curriculum for first and second grades was developed on the "modified" format, it would be more logical and easier to develop the third grade curriculum in the same format, allowing a sequence of programing.
4. The "modified" curriculum for the first and second grades had already been implemented in many Nucleos schools of the Project. These schools would need, therefore, a "modified" curriculum for the third grade.

It must be stated that these were the opinions of the director of the Component. What was fact and what was opinion was never discerned. At this point, strong allusions were made that only Bolivians understood "la realidad Boliviana" (the reality of Bolivia), that all suggestions were foreign (foráneas) and that suggestions should not be imposed against Bolivian wishes. Often an idea that could not be classified as "foránea" was rejected on the basis that it had come too late. In this manner, communications began to be stifled toward the end of the Director's tenure in the Component, the technical advisor was completely isolated and unable to render any technical assistance, despite the fact that it was urgently needed since the team was well underway in developing the third grade curriculum.

The team felt strongly that the third grade curriculum should adhere closely to the national curriculum, Planes y Programas, because they felt that to do otherwise would be to violate Bolivian law. Thus, they studied the Planes y Programas for the years 1938, 1948, 1955, 1963, 1965, 1973 and 1976. The third grade curriculum was developed along with the addition of technical areas such as home economics and agriculture. Like the curriculum for the first two grades" we feel that the curriculum should have been a transitional bilingual model from Quechua to Spanish, which it was not. The new curriculum was finished by December, 1979 but because of logistical reasons it was not duplicated until February, 1981.

This team rewrote the instructional materials for the second grade consisting of eight booklets with stories based on a rural socio-

cultural background. These booklets assume at least a second grade reading level but are applicable through the second half of the third grade. It is also recommended that some transitional (Quechua-Spanish) materials be developed.

Orientation and implementation workshops were held regarding the new curriculum and use of instructional materials. It was discovered during on-site visitations to the Nucleo schools that there was much confusion among the teachers as to which curriculum (i.e. the bilingual, the reformed or the traditional) should have been implemented. At the same time the teachers and directors kept requesting the third grade curriculum and the materials for the first, second and third grades. To add to the confusion, whenever teachers or directors came to the project office, the Project Director gave orders that the reformed curriculum plus the materials be given to the teachers because the teachers did not wish for nor could they implement the bilingual materials.

The same confusing situation was perpetuated at Vacas during the seminars for the student teachers when personnel from the Bilingual Unit would hold a seminar for orientation on the bilingual materials, followed immediately by personnel from the Curriculum Development Unit giving an orientation on the reformed curriculum and materials.

The third curriculum Team took their annual vacation during the month of December, 1979 and was disbanded upon their return in January. At this time, the fourth Curriculum Team was created and a new director for the Component was named. He had been with Component II until he assumed the office in the last week of February. The new team consisted of five new members plus one holdover from the previous team.

Upon the arrival of the new Director, the Technical Advisor gave him a thorough orientation as to the Component's status, giving him a review of the past activities of the Unit and of the projected plans for 1980-1981. An orientation seminar was held for the new team at which time the 1980-1981 plan was revised. Out of this seminar, also, grew an awareness of the need to get input for the development of the fourth grade curriculum from the teachers and directors in the field in order to make the curriculum more viable and acceptable.

Subsequently, the team conducted on-site visits to a number of

Nucleo schools where information was gathered pertinent for development of the fourth grade curriculum. At the same time, in-service activities were carried on. During the on-site visit, it was uncovered again that there was much confusion among the teachers and directors as to which curriculum to use. Often in a Nucleo school in the same grade one teacher would be using the bilingual materials, another was implementing the "reformed" Planes y Programas, or perhaps using a smattering of all three. Many classrooms had no curriculum guides and the teacher was applying whatever she could remember from any one of the three programs.

With this situation in mind, the Team decided to conduct a survey to find out how many classrooms were applying what curriculum. This was done in May, 1980 through questionnaires and taped interviews. Unfortunately, just about the time that the data was to be analyzed, the Director left for the University of New Mexico on a scholarship and the data was locked up without analysis. This added to the aura of suspicion between the Curriculum Unit and the Bilingual Education Unit.

The Director of Component, having devoted most of his time to the Curriculum Development Unit while leaving the Bilingual Unit unattended, was fairly well tied to the Curriculum Development Unit and unable to give any of his time to the Bilingual Unit. He named a "Responsable de Area" (assistant director) for the Unit just as the Bilingual Unit was headed by an assistant director so that he (the director) could devote adequate time to both Units of the Component. When he left, the Assistant Director of the Bilingual Unit was named Acting Director of the Component creating the same disparity as before except in reverse. This created an uneasy feeling within the Curriculum Team since the Component was in fact left without a head and the Assistant Director of the Curriculum Team never had enough authority to comply with this responsibility as Acting Director of the Component, spending all his time with his duties as Assistant Director of the Bilingual Education Unit and virtually abandoning the Curriculum Unit as had been the case before except in reverse. Adding to this the strained relations described above between the two units, the Curriculum Development team was virtually left without representation in the administrative hierarchy.

During this period, the Team suffered considerable neglect in getting much needed services (e.g. a broken typewriter was left unrepaired for more than ten months; the Unit was left without a secretary for about

six months). Thus the fourth grade curriculum which had been finished in June was not typed until the latter part of November.

The confusion as to the objectives of the Project and the objectives of the Components persisted. On September, 1980 (seven months before the termination of the five-year Loan Agreement and the possible ending date of the Project), the team was asked to delineate the objectives of the Component. The Technical Advisor pointed out the objectives projected in the "Green Book", of which none of the technicians had even heard of, let alone understood its contents. Finally, the objectives were deduced from the activities listed in the Loan Agreement. With this set of objectives, the Team realigned its activities and time line to accomodate the work yet to be done and the time left to do it. Unofficially, however, team members still believed that the Project would be extended until December, 1981.

The Team developed the fifth grade curriculum by the middle of October 1980 and proceeded to proofread the first typed draft of the fourth grade curriculum. Both of these adhered closely to the format and structure of the national curriculum, Planes y Programas, except that the "modified" curriculum had a wide selection of activities, some relevant to the altiplano, some to the valley area, and some to the jungle area. It also differs from the national curriculum in that its objectives were more operationally defined, and that evaluation procedures are included. The fifth grade curriculum also includes the vocational-technical areas, agriculture, home economics, health, and rural crafts which are not in the national program.

The fifth grade curriculum seems expansive in subject matter content, and would require very careful planning on the part of the teacher to cover all of it in a school year of 220 days. Given the usual circumstances that there is never a full school year, it is increasingly doubtful that the subject matter could be covered in full. At the same time it assumes that all the children will be progressing at the same rate in all areas which is contrary to what is known about learning. The other criticism of this curriculum is that there is no articulation or correlation between and among the distinct subject matter areas.

Regarding development of instructional materials, perhaps not

enough attention was given this important aspect of curriculum development. As was stated above, the technician in charge of materials development was moved to manage the duplicating office of the Project. A technician who was later named to develop instructional materials for the fourth and fifth grade curriculum was on a temporary assignment (in between jobs). After six months he left the Project, without developing any materials (he had been assigned a directorship in a Nucleo school). Another technician assigned to developing the fourth and fifth grade teachers' guides was given the additional job of developing instructional materials. He developed some materials for language arts consisting of a collection of multi-level stories, poems, sayings, proverbs and riddles taken from Bolivian rural and historical folklore. As of the writing of this report, these materials were supposed to be in the process of being typed and readied for printing. The teachers' guides for these levels had not been developed.

This fourth Team, like the previous ones, collaborated in the workshops for student teachers and professors at the Normal School at Vacas. They also conducted some on-site visitation and in-service training activities. It is the consensus of this Team that the on-site activities are more beneficial than the short-term courses offered out of the school setting.

At the time of this report, the fourth and fifth grade curriculum had yet to be printed. Plans had been developed by the team for implementation of the "reformed curriculum" grades 1-5 during the 1981 school year. Whether these plans come to fruition remains to be seen since no decision has yet been made by the Ministry whether to continue with the Project after the termination date of the Loan Agreement, April 30, 1981.

Restrictive Factors.

Most of the restrictive factors affecting this Component were the same factors that affected the rest of the Project. As such, there is no point in delineating them in this section again. Others that might have been peculiar to the component have been treated in the previous section under Activities and Accomplishments. There is one, however, that was not dealt with above and perhaps should be considered here. There seemed to have been little or no commitment to the work of developing the curriculum on the part of most of the technicians in the

several teams that worked during the Project. There was no identification with the product and, therefore, little pride in a job well done. This perhaps was due to the fact that the personnel stayed such a short time with the Component that there was not enough time to develop this identification, commitment and pride.

These, then were the activities and accomplishments of Curriculum Development and Materials Development Team. Certainly, not all that was projected was attained. Given the adverse circumstances under which this component operated, however, much was accomplished. With the awareness for the need of improvement developed among several people involved in this Component (directors, technicians, directors and teachers), hopefully much more will be accomplished in the future. It is hoped that the spirit of the Project will not end with the termination of the Loan Agreement.

Recommendations

The thrust of the Project was to develop a prototype educational system for rural education in Bolivia. Bolivia is mostly rural with a great diversity in topography, climate, people, culture, life styles, and language. The curriculum to have been developed in this Project was to be relevant to the socio-culture of the rural area. This is a generalization without meaning because of the diversity factor. A single curriculum cannot possibly be relevant to the needs, aspirations and conditions of all the diversified situations encountered in rural Bolivia. At the same time, there is a need to have a nexus around which all Bolivians can rally in the educational enterprise; thus, the national goal "desarrollar al hombre integral Boliviano." There is no adequate translation for this objective. Basically what it means is that the whole individual be developed as "Bolivian." One must remember that Bolivia with all its diversity, is one country, one land, one people.

With these considerations, it is recommended that the basic curriculum for education in rural Bolivia have a common strain, but that it be flexible enough to adapt it to the changing conditions of the different areas. For this purpose:

1. The thrust of the educational system be clearly defined in gross behavioral terms geared to the developmental needs of the country.
2. That the objectives of education be clearly defined in

gross behavioral terms.

3. That there be a flexibility in the subject matter areas required as vehicles to attain these objectives.
4. That the subject matter areas be relevant to the needs of the country, to the needs of the region and locality, and be responsive to integrating the social and developmental needs of the individual.
5. That the scope and sequence of the subject matter areas be developed according to sound educational principles tempered by the feasibility of implementation.
6. That an original curriculum design be developed that is most suitable to rural education.
7. That the subject matter areas be integrated and correlated since the child learns as a whole being and not as a compartmentalized storage bin.
8. That the content of the subject matter be organized into resource units of work having a wide variety of activities and experiences from which the teacher can choose in order to adapt the learning experience to the socio-cultural conditions of the learner.

For implementation purposes and as a continuation of the Project, it is recommended that all work not yet finished (e.g., development of the instructional materials for fourth and fifth grades, duplication of the curriculum, etc.) be finished. That the first, second and third grade curriculum be adapted to the bilingual modality. Once these things are done, the whole curriculum of grades 1-5 be pilot tested in a reduced number of neucleos so as to be able to hold a number of variables constant. The pilot testing should be done in the formative experimental approach where all the variables not proving positive are discarded and other possible ones are introduced. At the end of the pilot test, the decision should be made whether or not to extend the use of the curriculum and materials to wider circles.

2. Bilingual Education

This subcomponent of Curriculum Reform and Educational Materials Development was designed to provide experimental application of a transitional bilingual education model for the first three grades of rural

central and sectional schools in Cochabamba. Because of the high percentage of monolingual vernacular-speaking students entering the typical first grade class of primary schools in the Quechua-speaking rural areas of Bolivia, the model of transitional bilingual education described in the "Green Book" anticipated the use of the rural students' own and only language (Quechua) to initiate the mastery of basic school skills, while simultaneously beginning the learning of the official language (Spanish) employing second language teaching techniques.

The subcomponent was designed to provide: a) the development of bilingual education teaching materials for the first three grades of rural primary schools, b) training for rural teachers in bilingual education methodology, and in the use of specially developed materials for rural students who do not bring to the school any mastery of the official language, and c) the implementation of a transitional model of bilingual education in the first three grades of the 22 nuclear school systems chosen for the Project, including follow-up training and classroom evaluation.

To give this innovation in Bolivian rural education a better chance for survival and success in the face of anticipated antagonistic feelings on the part of Bolivian rural education administrators toward the formal and systemitized use of the vernacular (Quechua), a headstart element of bilingual education was incorporated into the previous Loan Project AID-511-051 to begin the training of a team of rural professors and develop teaching materials for the PER-I project.

A socio-linguistic research study was also initiated in the previous project which would provide the parameters and data bank for guiding the curriculum reform and bilingual education subcomponents of the present Project. This research program was carried out on a national scale, but because of initial delays in the organization and contracting of personnel, was unable to complete more than the application of the research instruments in the field and the initial preparation of those materials for analysis, computation, and the writing of the research report.

Although both the first phase of training and materials development and the field research on a national scale were completed in the previous project, planners had not anticipated that Bolivian

administrators would be oblivious of this overall planning and, therefore, not recognize the relationship of the previous project with the PER-I Project. Serious opposition to the incorporation into PER-I of both the research project and the bilingual education team trained for PER-I in the previous project, killed the former project and seriously delayed the latter. It took eight months of administrative wrangling after the naming of the Bolivian technician responsible for bilingual education to finally get that person incorporated into the present Project. This delay virtually neutralized the advantage of the head start effort provided by the planners. Even so, this headstart planning contributed considerably to the measure of success which this subcomponent was able to realize in accomplishing project goals by permitting: a) the selection of a bilingual education team of rural professors using specific criteria developed with the supervisors of district education offices of the three Quechua speaking areas of the country, b) significant pretraining and the development of a team spirit, and c) the development of considerable first grade teaching material with which to kick off the First Teachers' Training Course in Cochabamba.

The team of six rural professors for the bilingual education materials development team were chosen from candidates presented by the district supervisors of Chuquisaca, Cochabamba and Oruro to assure that materials developed and used in the Cochabamba project would be adequate in the other Quechua speaking areas of the country. However, this planning did not anticipate the competitive feelings that exist between the three district areas. The representatives of Chuquisaca and Oruro were never made to feel that they really were a part of the Cochabamba project by members of the other components in the Project. This planning also did not anticipate the sluggish administrative processing of stipends provided for those members who were working outside of their home areas. Both aspects contributed to the final discouragement and withdrawal of the four non-Cochabamba members from the team at less than the halfway mark in the Project. Only one of the four lost members was ever replaced. A Cochabamba rural professor who had been trained by the program and who had experience with the methods and materials at the classroom level was eventually incorporated into the bilingual education team.

Efforts on the part of the Bolivian technician responsible for bilingual

education to get short-term qualified personnel to help fill the gap created by this loss of team members was only partially successful. One especially qualified professor who contributed in just four months to the production of the 2nd grade social studies bilingual text was requested to resign for reasons never satisfactorily specified by the project administration, leaving the team to limp on as it could.

Classroom evaluation, it was planned, would be carried on by researchers from outside the project either contracted directly by USAID or by UNM. This evaluation was planned quite early in the Project life to assure pre-testing, post-testing, and interviewing of teachers, directors and parents. An evaluation instrument was designed by a special group of Bolivian and foreign professors contracted by USAID. The group worked in close harmony with the subcomponent personnel. The evaluation instruments were pre-tested by one member of the group in the district of Chuquisaca to avoid contamination in Cochabamba. The instruments were later revised and readied for use in Cochabamba. Cancellation of the school year by the Ministry of Education more than six weeks before the normal date scuttled the Cochabamba evaluation attempt. Efforts on the part of both the UNM consultant and the subcomponent head to get the Project to contract short-term personnel to carry out this evaluation were totally unsuccessful. The omission of this external classroom evaluation and the lack of follow-up on the sociolinguistic research project constituted the two largest gaps in the development of the Project as far as bilingual education was concerned.

The job status of the personnel of the subcomponent was never solidly established during the entire life of the Project. Many months' delays in paying the personnel and the constant insecurity which was produced by the inability of the administrative personnel of the Project to overcome these delays resulted in the personnel using vacation time to seek their own pay solutions in the nation's capital. Team morale was affected and enthusiasm coming from months of producing effective materials, training rural teachers, and visiting classrooms in the field to help teachers make the system work, was undermined by lack of support by the Project administration. In spite of these discouraging features, the following activities were accomplished:

General Activities

The activities of the subcomponent of bilingual education were

divided into three areas: development of educational materials, teacher training, and follow-up in the classrooms using the model.

Development of Teaching Materials. In spite of delay in the acquisition of basic equipment and materials needed for this activity, the momentum gathered in the previous project, together with the positive reaction to the materials on the part of rural teachers trained during the first teachers' training course, kept the bilingual education team working steadily on the completion of first grade materials to keep ahead of their use in the schools. The UNM technical consultant completed studies analysing the phonological system of Cochabamba Quechua and the discourse analysis of Quechua oral literature which were begun in the previous project. Both of these activities afforded training for the team of rural professors in the familiarization with their own "mother tongue" and with the process of linguistic analysis. Theoretical training received in La Paz now took on more practical aspects as it was applied to developing the materials.

Several governing principles were established early in the materials development process: a) the materials should be natural, rural Quechua without purist attempts to create a model, but artificial, brand of Quechua (avoiding the creation of any special "primerese" style of language), b) the materials must correspond to a gradual development of word and morpheme control, limiting the number of new elements learned in each lesson and on each page, c) the materials must reflect the rural, Quechua cosmo-vision with a gradual introduction of elements foreign to the child's environment, primarily through the social studies texts, and even then, viewing those elements from the rural, Quechua point of view, d) during the initial period when emphasis is upon the acquisition of the basic skills of reading and writing, no extraneous information should be introduced to detract from the development of enjoyable, comprehensive reading skills within the child's own known and familiar world, and e) materials should reflect Bolivian values, stimulate patriotism and re-evaluation of autoctonos, national phenomena which constitute a part of the Bolivian patrimony.

In the process of materials development, the team learned the whole gammut of procedures from the drawing board to the binding and distribution of the educational materials. Aside from the gifts of creative writing and illustrating these materials, which are not necessarily

a part of the skill set of a rural teacher, the team was capable of the whole range of responsibilities connected with materials production.

The use of Quechua in written literature is a novelty to nearly all rural teachers in Bolivia. The process of producing the literature required in this Project, exposed not only the bilingual education team but also hundreds of rural teachers, school principals, district supervisors, and education administrators to written Quechua. There was much reluctance and hesitation at first, but eventually most skeptics were finding the written use of Quechua not the insurmountable obstacle to educating the monolingual student they had first supposed it would be.

The alphabet used by the Project correspond to the one established by Presidential Decree in 1954, which was recommended by the Minister of Education in his address at the First National Seminar on Sociolinguistics and Education at the onset of this Project. Spanish letters not used in Quechua orthography are slowly introduced in Spanish contexts to reinforce pronunciation in the process of learning the second language, as well as to broaden the student toward comprehensive reading in Spanish.

Teacher Training. Summer and mid-year vacations were taken advantage of to accomplish the teacher training area of the subcomponent work plan. Although six weeks were requested for each training period, in most cases only four weeks were permitted, and in one case only two weeks were authorized. Classes were largely dedicated to practice teaching of the new materials but orientation was also given in: a) Bilingual Education, c) Phonology and Morphology of Quechua, d) Language in Education and e) Language and Culture. Both local and foreign professional linguists were contracted on short-term bases to aid the team in rounding out the teacher training program with these theoretical concepts.

Because of a lack of coordination with Component II's work plan, no provision was made for the incorporation of bilingual education into the Normal School curriculum. In view of this serious omission, the subcomponent of bilingual education dedicated approximately 10 days in each school year from 1978 on, to the training of the graduating class of the Normal School in bilingual education methods and materials, although this had not been previously planned in the subcomponent's work

plan.

Some aspects of traditional rural education in Bolivia have built-in negative features which the subcomponent endeavored to overcome in the teacher training program. More detailed analysis of these problems can be found in UNM quarterly reports. Suffice it to state here that little progress was achieved in changing teaching and student seating patterns from the traditional total dominance of all students' attention by the professor (requiring that desks be lined up as pews in the classroom). Attempts to divide classrooms into study areas to permit more personal attention and eye contact with teaching materials were rejected, in part because of tradition, but also in part because the Project did not provide adequate furnishings for the classrooms. It is quite difficult to move adobe blocks and planks once they are mud-cemented into place.

In many ways, the teaching materials designed for the Project required much more participation by students in activities like the use of the flannelgraph in the reading readiness phase of first grade teaching. The same is true of the Cuisenair rods used for teaching mathematics and the mimic/acting activities connected with learning the second language.

Some time was dedicated in each teaching course to practice reading in Quechua by the rural professors attending the course. It became evident quite early in this experience that rural teachers were not accustomed to reading for enjoyment in any language and that some, who had learned Spanish in the early years of primary education, had little experience in comprehensive reading. Although not all of these problems were overcome in the short weeks of teacher training, good progress was made in a sizeable percentage of teachers, and all were given a taste of comprehensive reading in the vernacular, something most of them thought was impossible.

Classroom Follow-up and Evaluation. During the first school year when the subcomponent was limited to only six of the twenty-two nuclear systems of the Project, the bilingual education team was able to visit all classrooms participating in the experiment twice each semester. These visits proved helpful, both in providing further orientation to the rural teachers, and in giving the team feedback to the process of materials

preparation. First grade materials produced during the previous project were revised, and improved versions were used in the second year of the experiment. An example of the changes these visits produced in subsequent materials was the publication of three separate books of the revised version of the First Quechua Reader, since the team found that the children had virtually worn out the last pages of their reader before they ever reached those lessons.

In subsequent school years, when the subcomponent's responsibilities were expanded to re-do the plans and Programs which were prepared with no consideration of the linguistic reality of the first grade rural Quechua-speaking students by the curriculum reform commission, much less time could be dedicated to the very important follow-up activities. Diverting the bilingual education team into activities not previously planned, and for which they had little training, consumed a disproportionate block of time in their schedule. Although the first grade adaption was completed and stencils cut for its reduplication, the team became discouraged with the delay in getting the curriculum office in La Paz to give it the same consideration given to the reformulated Plans and Programs of the Reform Curriculum Commission.

Sociolinguistic Research. The job description contained in Loan Agreement AID 511-V-054 corresponding to the bilingual education consultant, refers to participation of this technician in the sociolinguistic research project for which some \$47,000 was designated in this Project's budget. Reluctance to recognize this activity which was initiated in the previous project as an integral part of PER-I's responsibilities, plus an apparent reservation on the part of the Project administrators to use loan funds for contracting an outside entity to carry out this commitment, prevented this research from being completed. UNM quarterly and monthly reports from the bilingual education technician are replete with appeals for the Project to complete this part of its responsibility. Even though its specific need in the latter part of this project may have lapsed, the need for the data that this national-scale study would produce is sorely felt for planning in many fields in Bolivia.

Prominent Achievements

A. The subcomponent of bilingual education produced a series of first and second grade educational materials to provide both major

objectives of the mastery of basic school skills and the learning of Spanish as a second language. The first readers are printed in four colors to make them more attractive and to give more stimulus to the rural student who brings a strong conviction to the school that he will not be able to read. Reading readiness, using the flannelgraph, requires plenty of student participation and physical activity in high altitude climates, which helps to break the traditional pattern in which teachers ask and answer the questions and are mimicked by the students.

Writing lessons are coordinated with the reading materials which are designed to reflect the rural Quechua environment, the interests of the child, while attempting to avoid the introduction of alienating and extraneous elements. Attention, therefore, can be concentrated on acquiring and enjoying the process of communication via the printed page.

The oral/lingual method of teaching Spanish as a second language, by creating a theatrical atmosphere, requires much student activity in imitating the gestures, body posture, facial expressions, and language of the professor. Dialogues are designed to include vocabulary and language usage most needed in the early primary grades, and include the school, the family, and the community relationships most known to the child and most necessary for his contact with the Spanish-speaking and bilingual segments of rural Bolivian society. Social study texts gradually introduce the external world which is unknown to the average rural student through the eyes of a Quechua speaker.

Mathematic concepts and processes are introduced using the Cuisenaire colored rods which substitute the need for introducing in the beginning weeks of school another language task (that is, the memorization of graphic math symbols and formulas). Some introduction to modern math is provided so that the child experimenting in this bilingual education model will not be deficient in requirements of the traditional classroom and examining professors.

Reading is initiated in the vernacular language (Quechua) and reader texts are accompanied by materials to aid the teacher in handling the special problems involved in codification and decodification of long words so typical in Quechua. Spanish letters not used in Quechua

orthography are slowly introduced in a Spanish context until by mid-second grade, the new reader has been exposed to all graphic elements needed to read in both languages.

Student exercise workbooks, wall charts, an ABC animal book, a bilingual dictionary, cassette recordings, guides and manuals are all designed to help keep the teacher on a systematized and complementary use of both languages in the gradual switching of language roles over a period of the first three years of school.

B. The subcomponent of bilingual education provided the training in the principles, theories and practical teaching of bilingual education using a transitional model to most first, second and third grade teachers of the Project in four special teacher training courses and to all graduating students at the Project's Ismael Montes Normal School at Vacas. Although some nuclear school principals and an occasional district supervisor attended some training opportunities provided by the subcomponent, the Project was unsuccessful in getting included in these courses, the rural school administrators and/or was unsuccessful in keeping them at their jobs after they received the training. The subcomponent succeeded in programming two analysis and evaluation seminars to provide input to the model being used, and to train the teachers and the team members to be self-evaluating.

In addition to these formal courses, the subcomponent director and UNM technical advisor for bilingual education took part in the Teachers' Orientation Course at the very onset of the Project. Both participated in classes directed by the UNM specialist from Albuquerque who was responsible for the section on producing educational materials. This provided an opportunity to expose all rural professors then participating in the Project to the underlying principles and the basic philosophy of bilingual education. During this course, the subcomponent director applied an objective questionnaire to all participating rural teachers that rendered false the theory and dissipated the myth that rural teachers would oppose bilingual education if it were introduced in all 22 nuclear school systems of the Project. Over 90% of the rural teachers polled at the course expressed interest in participating, to one degree or another, in the bilingual education experiment. Even those not willing to participate were, nonetheless, interested in having it tried in the district.

Other occasions, in civic clubs, intellectual societies, and the National University of San Simon in Cochabamba, provided the bilingual education personnel opportunities to present (1) the bases for systematic usage of the vernacular in rural education in Cochabamba, and (2) the principles and materials of the bilingual education model used in the Project.

The bilingual education team took understandable satisfaction in these opportunities to provide bilingual education orientation to all rural teachers participating in the Project and specific training in bilingual education methods and materials to a good percentage of first, second and third grade rural teachers, school principals, and graduating normal school students. However, that satisfaction was over-shadowed by the fact that so few of those trained actually participated in the experiment in Cochabamba. Beyond the control of the technicians at the level of the subcomponent, many of those sent to the teachers' training courses were not first, second or third grade teachers as had been specified in notifications given by newspaper and radio announcements emanating from the subcomponent. Instead, many course participants were special confidants of nucleo directors and were primarily interested in the stipend provided for rural teachers attending the courses.

Conditions Precedent and Ministerial resolutions notwithstanding, a high percentage of teachers trained by the subcomponent were either transferred out of the area of influence of the Project or out of the experimental classrooms within the Project, following their training period. No coordination existed between District Education Office, the Project Administration, or La Paz MEC officials to control this lamentable violation of the spirit of the agreements reached between the MEC and USAID, and the resultant waste of funds for bilingual training in Cochabamba.

Additional opposition on the part of nuclec school principals left trained teachers in a quandary as to who was really responsible for their activities in the classroom. Special demands to conform to traditional activities coming from nuclear school principals, directives diametrically opposed to Project experimentation, conflicting courses programmed by the District office (especially during the 1980 school year), confirmed earlier predictions of the Project planners that the primary opposition to bilingual education would come from rural education administrators. It

is lamentable that early attempts by the bilingual education subcomponent director to incorporate district supervisors and nuclear school principals into the bilingual education training were not supported by the Project administration, nor by the District Education Office in Cochabamba. It should not be forgotten that none of the nuclear school principals trained by the subcomponent continued in that following their training.

Internal evaluation of all teacher training courses provided by the subcomponent were carried out by the Project's Component II team. These evaluations on the part of those rural teachers who received training reflected the positive attitude on toward receiving their training.

C. The bilingual education subcomponent's accomplishments in the area of follow-up and evaluation have been commented on in earlier sections of this report. However, no mention was made of samplings the team carried out to test results in schools which combined the elements of a) a teacher trained in the method and materials, b) a school room in which the methods and materials had been used since the beginning of the experiment, and c) average student attendance. Such soundings were made at the end of the 1979 and 1980 school years.

Results from these soundings were possitive where the following three elements were present: a) good teacher capabilities, b) freedom given by nuclear school principals to consistently apply the bilingual method and c) good teacher and student attendance. Children who had been exposed to the bilingual methods and materials since 1978 (which means for a period of less than 300 school days in the very best of cases) were able to read comprehensively in both languages, (quite fluently in Quechua and very comparably to intermediate level students in Spanish), express answers to written questions in a legible handwriting in Quechua, respond naturally and with little accent in oral Spanish within the parameters of the first five units of the oral Spanish course, and demonstrate acceptable mastery of basic math concepts and processes.

When it became evident that no external evaluation of class-room accomplishment in basic school skills and mastery of oral Spanish would be carried out by the Project, the bilingual education team

secured the cooperation of the SAED division of CEDED to document those achievements on video tape. Two hours of video recordings were filmed in four different classrooms; the sectional schools of Pocona and Chingurí, and the central schools of Quwari and Novillero. It is hoped that these cassettes can be edited and narrated to provide teaching tools for rural normal schools in Bolivia.

Principal Impediments to reaching Project Objectives

A. The basic opposition to a programmed and systematized use of the vernacular in education evidenced by rural education administrators, constituted a serious and constant threat to the accomplishing of the subcomponent's goals both within and outside of the Project. A lack of recognition on the part of administrators as to the experimental nature of the Project was a serious impediment to getting the agreement stipulations adhered to at the beginning of the Project. No attention was paid to the recommendations of the Integral Diagnosis of Bolivian Education of 1974; and less than a careful consideration was given in the Loan Agreement in the planning of curriculum reform. The curriculum component personnel gave little or no importance to the guidelines and recommendations of the basic documents regarding the use of the vernacular language and the implications of taking into consideration the socio-cultural context of rural schools in Cochabamba. No heed was paid either to the specification within the Loan Agreement that the reform commission limit its work in the lower grades to developing a "skeletal curriculum" and then turn their attention to the curriculum and educational materials of grades 4-8, leaving the putting of the meat on the bones to the bilingual education commission.

The personnel responsible for the curriculum reform interpreted "curriculum reform" to mean the restating of the traditional Plans and Programs since, for them, changing the curriculum would constitute a violation of the Bolivian law governing the curriculum. This is not merely an exercise in semantics. The position adopted by the commission is diametrically opposed to the "Letter of Intention" that the Minister of Education wrote to the AID/B mission director in La Paz on July 24, 1975. In this letter the Minister stated, ". . . the Government of Bolivia wishes to initiate the following activities in the area of the Project:

1. To modify the present curriculum being used in the rural normal schools and in the rural primary schools by means of research and experimentation in

order to develop the teaching materials needed to respond to the learning needs of rural youth and communities."

The curriculum reform commission also interpreted curriculum development to mean curriculum implementation rather than the introduction of a curricular change in form or content.

In the light of the position held by the curriculum reform commission, the Bolivian technician responsible for the subcomponent of bilingual education was forced to either, a) identify with the position of the curriculum reform personnel in opposition to the stipulations of the Loan Agreement and contrary to the guidelines of the "Green Book" and the recommendations of the Integral Diagnosis or, b) seek sufficient autonomy in the bilingual subcomponent to allow the development of an experimental application of bilingual education along the lines specified by those documents. He chose the latter.

The resulting "parting of the ways" brought serious concern to USAID monitors and contracted evaluators. The UNM technicians were caught in the middle. By ignoring the guidelines clearly established in the planning documents but less clearly stated in the Loan Agreement, the "curriculum reform" commission proceeded to "restate" the national Plans and Programs along traditional lines and to develop teaching materials for the first three grades, clearly violating the stipulations of the Loan Agreement by omitting in their "Justification of the New Plans and Programs" any reference in the Loan Agreement to the vernacular language or to their responsibility to design only a skeletal curriculum for the first three grades and then turn their attention to the curriculum and educational materials for grades 4-8. This arbitrary position put the two subcommissions into conflict which not only caused duplicated efforts and a considerable waste of time; but also created unnecessary tensions between Project personnel. Several serious but relatively unsuccessful attempts were made to rectify this initial faux pas during the life of the Project. It should be said that the opposition to the systematized use of the vernacular in rural education reflected in the position adopted by the curriculum personnel at the beginning of the Project is commonly held by rural education administrators and continues to constitute one of the main obstacles to the introduction of innovative experimentation in the area of rural education

in Bolivia.

B. The sluggish administrative mechanism of the Project has already been referred to in detail in an earlier section of this report. With respect to the bilingual education subcomponent, this lack of organization and flow primarily affected the production of educational materials by a) delaying procurement of equipment and materials, b) slowing or blocking authorization of budget expenditures related to contracts for printing, recording, and illustrating teaching materials, and the contracting of a research agency to complete the sociolinguistic research project, and c) creating uncertainty in the status and delayed pay of the subcomponent personnel.

The lack of a flow chart and procedural manual for the processing of Project activities, in addition to the lack of written communication from one level to another within the Project, kept a cloud of uncertainty hovering over each subcomponent activity. It also created a feeling of hopelessness in trying to accomplish subcomponent goals on schedule.

Printers, familiar with USAID contractual procedures and cognizant of the fact that this Project was financed by funds originating in USAID, proceeded in good faith with Project contracts, printing the materials and even allowing their distribution before the Project had covered its bills. They finally became disillusioned with the Project's credibility and ordered a halt to the processing of Project materials until back payments were made. This blockage halted the subcomponent's output, demoralized team spirit, widened the credibility gap between rural teachers and Project personnel and interrupted seriously the experimental application of materials at the classroom level.

The lack of administrative follow-up on the Project's responsibility to complete the paperwork required to provide access to the results of the sociolinguistic research left an unjustifiable gap between the reality of the Bolivian rural scene and the design of the Project's goals and activities, especially in the bilingual education and non-formal education components.

The research instruments including questionnaires, observation

forms and tape recordings were finally removed from the basement of the CRA offices in La Paz and turned over to the PER-I administrator in Cochabamba in late 1979. The vehicle, several items of equipment, and the research plan documents were never sent to Cochabamba.

Recommendations

A. That the Ministry of Education and Culture sponsor the Second National Seminar on Sociolinguistics and Education to follow up on the first seminar with, among others, the following objectives:

a) to bring all available Bolivian expertise including linguists, anthropologists and educators to focus their attention upon the problem of rural education in the Quechua speaking areas of the country and to seek solutions, propose legislation, and design projects of research and experimentation using the present experience as one important source of information, data and statistics, and b) to establish an adhoc committee of specialists to draw up and propose for adoption by the Bolivian government a "National Policy of Language in Education" which would serve to give official backing to experimental programs like the present Project, and for the application of bilingual education to other rural, vernacular speaking areas of the country.

B. That the Ministry of Education and Culture continue the activities outlined in the work plan of the subcomponent of bilingual education in this Project, contracting on a short-term basis, the additional materials needed to complete three grades of primary rural education using the bilingual model which was experimented in the Project. This personnel would include: an artist/illustrator and a Quechua writer/social studies teacher to complement the present bilingual education team in seeing these materials through to completion.

C. That the Ministry of Education and Culture, once the bilingual education team completes the materials production, teacher training, application, and follow-up for grade three in classrooms with the area of influence of the Project, effect, in cooperation with the bilingual education team, a scientific outside evaluation of the results of the Project's use of the vernacular language in the early stages of rural education and its impact on the child's self-image, acquisition of basic school skills, and the learning of Spanish as a second language.

For such an evaluation, the original universe of the first three grades of the 22 nuclear school systems, which was greatly reduced because of administrative restrictions, must be stratified to select those classrooms where 1) a teacher was trained in the full gammut of courses in bilingual education provided by the Project, 2) progressively applied the bilingual method and materials over the full period of experimentation and, 3) where student attendance records and the number of classroom days of teaching were controlled. Without establishing these parameters, an evaluation would simply focus on the rural school's characteristic deficiencies without bringing into focus bilingual education versus the traditional method.

D. That the PER-II Project increase the time allowed for the bilingual education specialist for the unfinished business of incorporating the bilingual education methods and materials experimented with in this Project into the curriculum of the rural normal schools of Bolivia. This specialist could also endeavor to provide within that training special orientation for rural professors, to apply bilingual education methods and materials to adult literacy (which was not provided for in this Project).

E. That once the specialized nature of the present Project be discontinued, the team trained in bilingual education be incorporated into the SAED division of the CEDED in Cochabamba, and that the sub-component director be sponsored for academic training in the specialty of bilingual education in order to provide orientation and leadership for the expansion of bilingual education to other areas of the country.

3. Teacher Education and In-Service Education

The objective of this component was described in the Loan Agreement as follows: "The purpose of this component is to train rural teachers to meet the learning needs of "rural student." The Loan Agreement delineates the following activities that will be funded for this purpose: staff training courses (to familiarize the in-service training staff with the materials to be used during in-service training course); in-service training for the nucleo professors (mostly for the

purpose of introducing and helping to implement the new materials, techniques, etc. developed by the Curriculum Reform Commission); short-term observation and specialized courses (to expose rural teachers to the impact of bilingual education in other countries); a three year teacher training course at the Normal at Vacas; and community level training sessions for local development activities.

These original "objectives" were modified through letters of implementation and through practice to the following:

1. Upgrade the administration at the Rural Normal School at Vacas and the Nucleo Schools under the influence of the Project making it more functional and involving the participation of all the members of the respective institutions.
2. Upgrade the curricular package at the Rural Normal School at Vacas through the revision and reform of the course offerings and academic regulations.
3. Provide in-service training for the directors and professors in the schools participating in the project through field visitations and supervision, short term courses either offered by the Component or by other Components in cooperation with Component I.
4. Write and disseminate professional materials in order to improve the quality of teaching and administration in the Nucleo schools under the influence of the Project.

Historial Review

The Component was formally organized on October 1, 1976 with the appointment of the Director of the Component who fortunately remained with the Project as director of Component II until its termination. This factor allowed for continuation of direction, perspective and philosophy that few of the other Components in the Project enjoyed. The Jefe de Componente remained as the only member of the Component until the arrival of the UNM technical assistance on May, 1977. At a later time, a second technician was added to the Component who was charged with the development of activities for teacher training. A third member was later assigned to this component from the Non-Formal Education Component. This technician then became responsible for in-service training

and coordinating with other Components in the same endeavor.

In the meantime, the University of New Mexico Chief of Party resigned and the technical assistant for the Component was named acting Chief of Party with the dual responsibility of serving as part-time technical assistant and acting Chief of Party and subsequently became Chief of Party in August, 1980.

A group of professors, including some from the Normal School at Vacas who had been studying in Columbia for a year, returned on November, 1979. Ten of these professors were incorporated into the Component as the "Mobile Team" which was to carry out the responsibility of in-service education in the service area of the Project.

On January, 1979, the Component member who had been a former technician in Non-Formal Education was assigned as Jefe of Component I and assumed his responsibilities in February. On April of 1979 the technician in charge of teacher education was assigned as Director of the Project. In June, 1979, the team members of the Mobile Team were assigned to different Components. Three members of the Mobile Team were kept in the Teacher Training Component.

Activities and Achievements

The activities on this Component of the report are not divided on a chronological basis. It was thought that a better perception would be gained of the achievement by reporting the activities of the Component as they are related to the objectives of the Component.

Upgrading the Administration. The efforts to upgrade the administration of the Rural Normal School at Vacas began with an assessment of the Administration procedures. This assessment was conducted through a survey made of the professors and administrative staff at the Normal School at Vacas, which as part of a more general survey of the educational program of the Institution, led to a seminar with the staff from Vacas. During the seminar, both the administration and curriculum were studied and reforms were recommended. A follow-up evaluation indicated that there had been few reforms implemented. Out of this experience, a few manuals on administrative procedure were developed in the Component but were never put to use.

The effect of the use of the evaluation report of the administration at Vacas along with some other factors resulted in the "cooling" of relationships between the administration at Vacas and the Component. This break precluded any further attempts at upgrading the administration of Vacas for a long time.

A second major attempt for upgrading the administration at the Normal School at Vacas was conducted through a seminar with the professors and administration of Vacas where administrative personnel of the other four rural normal schools in the Department of Cochabamba participated. A product of the work-seminar was "Manual de Funciones Administrativas para Escuelas Normales Rurales" (Manual of Administrative Functions for Rural Normal Schools). In this manual, organizational charts were developed and roles were defined. Because of time constraints, the third part of the manual was not completed which would have been a section on policy for the Normal School.

There was no follow-up on the implementation of the manual, and since the director was removed from the post and another one named, the manual was probably shelved. Still, if the section on policy would have been completed, it would have been a valuable instrument which, with some modifications and adaptation, could have served well any rural normal school in Bolivia.

The efforts towards upgrading the administration of the Nucleo schools were attempted through field work and workshops. In the field work, the administrators were helped in developing a coordinated flow of their administrative functions as they actually existed. Emphasis was placed by the Component team on supervisory activities, relations with the community, coordinating and leadership functions as well as maintenance administrative activities in orienting and helping the Nucleo directors.

Unfortunately, distances proved a major obstacle in providing these services. The team was able to get to all the nucleos only twice during the life of the Project. There were some that were visited more times than others but still not frequently enough to cause a real impact on administrative behavior. The other factor that practically negated all effects of this endeavor was that most of the directors were removed from their position as directors or were moved

to other schools not in the service area of the Project.

The workshops held for the purpose of upgrading the administrative capabilities of the Nucleo directors were few. In these workshops, some administrative theory was introduced and practical applications were made of the theories exposed.

Generally, the content of the workshops was good, but the readiness factor of many of the directors was not up to par to properly assimilate the expositions in the seminars. One must remember that the vast majority of the Nucleo directors have had no formal training in administration. The results, in general, were rather mediocre. Generally, the directors were brought to Cochabamba for these workshops and given the ruralness of the Nucleos, perhaps this factor proved to be somewhat distracting. Two of the workshops which were held in the locality of the nucleo obtained better results.

Upgrading the Curriculum for the Normal Rural School. The attempt at reforming the curriculum for the normal rural school was conducted through seminars at different levels. The first seminar was conducted with the professors from Vacas; the second was conducted at Caracollo with Ministry personnel, representatives from all the rural normal schools in the country, and all the Project personnel.

A third seminar was held in Cochabamba where Ministry personnel, representatives from all the rural normal schools, PER-I personnel and PER-II personnel participated as well as representations from the teachers' syndicate, COMER.

A national seminar was then planned and implemented in Caracollo at the Rural Normal School. (According to Project personnel there was great need at the time to standarize teacher training practices with some curricular document since most normal schools had no curricular manual.

At this seminar great effort was made towards completing the curricular content areas and some substantial changes were made. Similarly, an analysis was made of the program of study (basically the sequencing of courses) and revisions were also made there. However, there was not enough coordination between the committees working on the

curricular content area and the groups working in the programs of study. The result was that the two tended to go in different directions. Nonetheless, the Component compiled the results of the seminar into a text, Planes y Programas de Escuelas Normales Rurales.

The text is comprehensive and thorough. It was duplicated and over 750 copies were disseminated throughout the country from the Ministry level to the Normal Rural Schools. It was hoped that this new curriculum would be widely implemented in the rural normales or at least would be used as a guide. Unfortunately, there was no follow up and no records were kept on the usefulness of this guide.

The third seminar for the purposes of reforming the normal school curriculum was held in Cochabamba under the auspices of Rural II and with the cooperation of Rural I. This seminar was supposed to have been based on the experiences gained on the implementation of the curriculum, Planes y Programas de Normales Rurales, developed at Caracollo. Top level ministry personnel, CONDER, PER-II, PER-I, and representatives from all the rural normales of the country plus strong representation from COMER (the teachers syndicate) participated in this seminar. Unfortunately, the seminar did not accomplish its principal goals. The proceedings of the seminar are contained in the Primer Seminario Nacional Especializado de Escuelas Normales Rurales.

In-service Training. This responsibility, while directly related to Component II, was shared by Components I and III as was addressed primarily through field work and short term courses.

The field work of all the Components was minimal because of the shortage of transportation. As far as the Component was concerned, it was only able to visit all the Nucleo schools a limited number of times during the life of the Project.

The short-term courses were sponsored by Components I and III with the support of Component II (in the form of finding the locale for holding the courses and conducting the evaluation).

In actuality there were too few short-term courses conducted for reaching the scope of the work that needed to be done. Often, the perspective effect of these courses were almost totally negated by the

excessive transfer of the personnel in the field. There were many instances when personnel trained in one of these workshops were not assigned to a Project school after receiving the training; other times, teachers who were not in the Project schools and had no intentions of serving in one would be named to attend a workshop only with the intentions of earning the per diem allotted to the participants (See the respective section of each Component for more details on this matter).

The Development and Dissemination of Professional Material. In attempting to meet this objective, the Component developed several materials which were disseminated to the teachers in the field. Among the materials developed were: "Unidades de Trabajo"; a text in "Curso Multigrado"; a monograph on PERTING techniques; Planes y Programas de Normales Rurales; "Alternativas de Planes de Estudio"; a flow chart on administration of curriculum construction; Manual de Funciones Administrativas; and Teoría de Sistemas Aplicada a la Educación.

The component also published a periodical called Mentor. This periodical had a variety of articles of interest to the teachers. The three numbers that were published received very good acclaim from the teachers and directors in the field.

Restrictive Forces. Regarding the field work at the Rural Normal School at Vacas, two outstanding problems blocked the work of the Component. One was the lack of infra-structure, i.e., buildings, classrooms, library, furniture, equipment and materials were not available for the team to carry on the work prescribed by the Project. Secondly, half of the professors of the Normal were outside the country studying in Columbia during a critical period when some of the in-service training could have been carried out. These factors were compounded by the difficult relations between the administration and Project personnel.

Other restrictive factors affecting the net gain of the whole in-service endeavor were:

The teacher incentives program was very late in coming, e.g., library materials, salaries and scholarships to study abroad. The lateness in implementing the teacher

incentive program produced a resentment on the part of the teachers towards the Project. Often teachers participated in the workshops because of the per diem paid each participant and the materials disseminated at the beginning of the program.

Lack of coordination between Components often made the attempt at in-service training difficult. Often Component units went to the field whenever transportation was available and conducted workshops without consulting with Component II. This practice often resulted in conflicting schedules for workshops conducted by the Component units duplication of efforts.

Lack of coordination between PER-I and the field administrative offices resulted in resentment on the part of the supervisors and District Director towards the Project. They felt that in-service training was their responsibility and that PER-I should have been coordinating the efforts with them. Often through direct intervention a supervisor would undo what had been attempted in-service education.

There was little coordination with parents and leaders of the community.

The persons conducting the workshops while they may have had sufficient knowledge of the subject matter were often not experienced in techniques and strategies of conducting workshops and in teacher training in general.

The geographic expansion of the Project precluded any timely and continuous follow-up on in-service training. Relatively little supervision was possible because of the enormous distances and road conditions.

There was strong resistance to change at all levels in the Project.

Recommendations

In any educational system, the teacher is the single most important factor. Regardless of the quality of the curriculum or the

abundance of instructional materials, the teacher can develop a program out of any curriculum. A good teacher can create a learning atmosphere almost anywhere.

There are four basic elements to a good teacher training program: (1) the opportunity to acquire an in-depth mastery of subject matter, (2) the opportunity to acquire a variety of sound techniques and strategies for teaching, (3) the opportunity to acquire a strong foundation for the job she is to perform, and (4) the opportunity to become actualized. The first two features are self explanatory. The third feature is the aspect of the program which enables the individual to have the background knowledge that enables her to judge when and how to teach what and with what methodology. In other words, such areas as psychology, sociology, social psychology and anthropology enables the teacher to understand the child and his background and to appreciate it with something more than blind affectiveness. The fourth feature enables the teacher to know herself, to accept herself with what ever assets or short comings, and to assume responsibility for her own development while striving unselfishly to help others.

A good teacher training program should be squarely based on what society is demanding the schools to do. One must remember that the school is the servant of society and must do what society demands regardless of how ill-defined that role may be. It is erroneous to think that the school can be the agent for social change. The school, the educational system, is too weak, too vulnerable to the forces of politics, religion and the norms of society in general. But by doing its job right, namely, to prepare faithful responsive and critical citizens well, these citizens, within the respective roles they may play in society, will be forever positively critical of their society striving to better it always. In other words, within its maintenance functions education can have a strong impact on the development of the society. In short, the teacher educational should be responsive to the needs and aspirations of society. Succintly, especially in a developing country, education should be viewed as an essential agent in the developmental efforts of the nation and should figure prominently in the national plan for development and the teacher should be viewed as the center figure in that agency.

With these considerations in mind it is recommended that for future projects the teacher training program have a well-defined philosophical framework that serves as a guide in the development of its program and to gauge its effectiveness.

It is also recommended that the programs be so coordinated in scope and sequence so that the thrust of the program, the production of the ideal teacher, is not lost.

It is recommended that the program be based on sound principles of educational, psychological, sociological, socio-psychological and anthropological theory in order that the finished product, the teacher, be understanding of, and responsive to, the needs of the child and the problems and aspirations of society.

It is recommended that the program provide ample opportunity to the teacher to get to know herself and start on the road to self-actualization. Only when the teacher knows what she is and what she has can she give herself to others.

Needless to say, the teacher training program should give the prospective teacher in-depth and broad subject matter knowledge and a variety of teaching techniques and strategies.

For continuation of this Project, it is recommended:

1. That the Manual de Administración be finished by developing and including in it the section on policy.
2. That an administrative manual for director of nucleo schools be developed.
3. That personnel from this Component be included in the implementation of PER-II.

4. Non-Formal Education

Component III, was responsible for Non-Formal Education, which is an area of interest world-wide. Non-Formal Education is seen as an educational alternative for marginal groups because of its context and philosophy. Research is needed in each country to determine how and in what form to implement Non-Formal Education.

It is necessary to reiterate what has been written in the

previous chapters, that the lack of clear and specific Project objectives, naturally, affected this Component. The lack of a determination of the philosophy and character of the Project caused serious distortions in its functioning. This was because, in a majority of occasions, the functionaries understood the Project as one of "development" and "service" while ignoring the fact that it was to be of an "experimental/formative" nature.

This confusion tremendously affected all the components, including Component III. Based on the criteria set by the director of this Component, the activities were to involve tasks of re-forestation, the construction of latrines, the development of water systems, etc. Thus, the concept of providing "services" to communities was promoted, while ignoring implicitly, the educational character of Non-Formal Education.

In referring to this Component, two stages are involved, one which was described in the previous paragraph and which lasted until 1978. During the latter stage, the Component tried to find a direction and strategy based upon rural Bolivian needs for its application and integral development. This philosophy was developed in 1979 and was utilized until the end of the Project. Naturally, the leadership given this Component in each of its stages was crucial. This point will be more concretely analyzed in the section on "Restrictive Factors."

Another factor, which can be established as having affected the proper development of this Component, was that for approximately two years, a UNM specialist in the area of Non-Formal Education was not provided. The technician in communications provided a limited amount of assistance in this area during the two-year period. A technician in handicrafts also provided a limited amount of technical assistance. Little was accomplished, however, because there was no infra-structure (workshops), tools, or equipment necessary.

It is important to note that among the Bolivian personnel, understanding of the fundamentals of Non-Formal Education existed. However, a leadership struggle and problematic inter-personal relationships had not allowed the proper functioning of this group.

Up to a certain point, the Non-Formal Education Component

suffered a period of operational crisis since the contract and other documents place great emphasis on the formation of countless groups that were to determine the functioning and operation of the Project. This created only a "super group structure", without decision-making power, nor a direct influence or the execution of responsibilities. In conclusion, the "Inter-Institutional Coordination" never functioned. Perhaps, it was because the Ministry of Education, through unilateral decisions made coordination academic. On the other hand, the lack of an appropriate strategy in the organization of the multi-sectorial committee, an individual functionary was often assigned tasks to perform.

General Activities

Before the Non-Formal Component established its general and specific objectives, it developed a functioning philosophy, defining that the subject of its future actions would involve the "campesino", who lacks education, who was not given necessary opportunities to develop his skills and abilities (though he did not lack intelligence and a basic understanding of what could be fundamental for his development). I do not believe that, through Non-Formal Education Programs, we should be developing men who are easy prey to manipulation and who are merely semi-skilled workers. Rather, we should develop the man's character, his basic essence, and his own analysis and criticism. He, alone, can learn to determine and prioritize his needs and learn their solutions.

This premise served as the principal basis of the Non-Formal Education programs, establishing for us a logical cycle:

- a. Organization of community and self.
- b. Development of a consciousness and formation of criticism.
- c. Forming and identifying groups based on a single necessity or objective.
- d. Determining the educational needs, the logical processes of learning, and the development of certain abilities.

This Component attempted to break from the traditional plan of help with which the "campesino" had been functioning for decades.

The traditional benefit programs, which up to this time, had apparently not given solution to campesino problems. An effort was made in the Component to drastically curtail the molding of individuals who would become easy victims in the development process. These people, through their own processes, should determine their own values in the process of improvement of their own situations in the harmonious development of the country overall.

With this philosophy, the following general objectives were developed by the Component:

- a. To achieve structural, social changes, as well as diversification and strengthening of the economic base at community level.
- b. To gradually attain social, political, and economical integration among the communities and their environment.

Based on these objectives and certain activities outlined in Project documents, the Component established its "Theoretical Framework of Action in Non-Formal Education." Four basic areas of action were determined: a) community, b) curriculum, c) training, and d) inter-institutional coordination.

In the areas mentioned, a determination was also made of how to achieve the following activities: research, programming, execution, and evaluation.

For a more comprehensive understanding of the above-mentioned actions, the reader may refer to the document entitled, "Objectives, Strategies, and Activities of Component III", which was written in August of 1980.

Once the philosophical and theoretical basis was established, the Component, through its functionaries, turned to the following global activities:

Community Research

The Component technicians, selected in 1977, designed and distributed a research questionnaire in the 21 communities designated in

the contract. During the remainder of 1977 and part of 1978, the Component personnel tabulated the results of the data from the research questionnaire. Unfortunately, the corresponding final data and resulting documents, with the exception of only one, are not available. It should be noted, that in spite of the effort by the team in the design, formulation, and distribution of the research questionnaire, the work and time devoted were lost due to the mismanagement of the data by those in charge of the Component at the time. It should also be noted that in the design and formulation of the research questionnaire, no provisions were made for insuring scientific validity or reliability of the items included. In lacking the assumptions of reliability and validity, therefore, the results of such a questionnaire would be of questionable inferential value and possibly irrelevant.

On several occasions, the team made renewed efforts to complete the research, but the lack and disappearance of data, as well as the absence of the personnel who had executed the research to begin with, made the culmination of the research activity impossible. The lack of proper baseline research made the completion of Component activities difficult.

Community Organization

Simultaneous with the research activities described above, the Non-Formal Education Team attempted to motivate the rural communities to form new organizational structures based on the following goals:

- That the community institutions which generally depended on a union or syndicate, make their institutional structures more independent.
- That the organizational structures of the communities themselves try to resolve their own problems and necessities, since existing organizational structures had other goals and objectives.
- That the new community organizations provide new leadership opportunities to individuals (traditional organizational structures had, in effect, closed their doors on community members who were not part of the traditional political framework or viewpoint).

The communities accepted the suggestions of the Component team and consequently formed the "Communal Assistance and Development Committees" (CADC). The committees seemed to meet the objectives listed above and were useful in coordinating the community work projects developed by this Component.

Training and Development of Abilities

As time passed, the technical team of the Component determined that the concept of Non-Formal Education was not well understood by teachers or community members with whom the Non-Formal Education Team would have to coordinate activities. It was decided by the Component team, therefore, to make an effort that community members and teachers understand the value and concepts of Non-Formal Education.

Even though each Component training session and workshop had various specific objectives, a general objective of all was that participants understand the foundations and philosophy of Non-Formal Education. Of course, the training sessions also experimented with methodologies and strategies which were appropriate to the Bolivian rural context: that being a context in which adults and youths lack formal schooling.

The experimental methodologies and strategies employed differed from traditional formal schooling and consisted of motivational techniques, simulation games, and kinetics. The teaching strategies differed from traditional approaches in that participation and involvement of the student was required. It is hoped that the new methods and strategies will replace the classical lecture method which has been highly correlated with high drop-out rates. Readers interested in the evaluations of these working sessions should refer to the evaluation documents prepared by Component III.

During 1979 and 1980, 22 principals and 305 teachers attended Non-Formal Education workshops. Of these participants, only 28 remained working in the 21 Project communities. In other words, only 9 per cent of the personnel trained were able to maintain a sequence of preparation. The other 91 percent had been transferred to other areas outside of the Project. There is no doubt that those participants who received Non-Formal Education training and were subsequently moved to

areas outside of the Project benefited from their exposure. The rapid turnover of teaching and administrative personnel, however, made attempts to sequence training workshops very difficult, if not impossible.

Besides the training provided for teachers and principals, the Component also committed itself to the training of "community facilitators" in each community. The concept of the "community facilitators" has been used with some success in other countries. It was hoped that, in time, community facilitators would be the best resource in each community to promote, to catalyze, and to stimulate different Non-Formal Education activities.

In the development of the group of community facilitators, young community members were encouraged to participate. The objective of involving the youthful element in each community was to encourage leadership behavior on the part of young people in the hopes that they would eventually replace the traditional leadership structure and be better able to organize and direct community activities.

It is noteworthy that during the Project participants who had been trained by the Component were often nominated to executive positions in the community assistance and development committees. They were, therefore, in a position to impact the operation of their various community organizations.

The training designed by the Non-Formal Education Component took into account the peculiar needs of each community because of input provided by the community facilitators and teachers who were trained previously in workshops. In general, the workshops used human relations and motivation approaches in an attempt to form homogeneous community groups who would work to find the solutions of their own particular problems and to address their own particular community interests.

In the final phase of the Project, the Component team attempted to achieve the goal of integral development, that is, both educational and economic. The training, therefore, encouraged the development of cooperatives, handicraft centers, and other centers of an economic nature. The combination of economic and educational training reflected a goal established by the national government. The formation of the cooperatives, handicraft centers, and other economic groups was not based on actions of

an agency from the outside implanting on the community outside values and goals. Rather, the goals, interests, and needs reflected in these groups came from within the community. It is felt, therefore, that the groups will not be short-lived, but will continue to exist after the termination of the Project.

Non-Formal Education Curriculum Manual and Supportive Materials

Although there was great interest among team members to develop a "Non-Formal Education Curriculum Manual", at the termination of the technical assistance contract, the document had not been completed. The manual was intended to serve as an orientation for Non-Formal Education teachers in the rural areas. It is understood that the manual will soon be completed and will include the basic ideas and needs established by the Component team members.

At this point and time, chapters dealing with Health, Home Economics, Recreation, Agriculture and Basic Education have already been developed and are ready to be included in the eventual manual. In order to provide reinforcement and additional resources for Non-Formal Education teachers, a Non-Formal Education Bibliography has also been developed.

In November of 1980, a small document entitled "The Pocket Manual for Non-Formal Education" was written and edited. In general, this book identifies the areas and appropriate strategies for anyone interested in initiating a Non-Formal Education program. This small book could be a prototype for the eventual Non-Formal Education Curriculum Manual.

General Accomplishments

Other activities of the Non-Formal Education Component are summarized below:

- Even though Non-Formal Education is not a recent development, its general philosophy and objectives were almost totally unknown by Bolivian teachers. As a result, Non-Formal Education was often confused with community development or community education. The work of the Non-Formal Education team, however, has brought about a recognition and understanding by community members and educators of what constitutes Non-Formal Education.
- The Component has developed a possible strategy for action in the area of Non-Formal Education in the rural sector. This

strategy attempts to enhance and not suppress the cultural values of the Bolivian campesino. It recognizes the sociology of rural Bolivia. The strategy may provide a basis for the integral educational and economic development of rural Bolivian communities.

- In conducting training workshops, the Component team members noted substantial deficiencies in the preparation that rural teachers had acquired in their Normal school. As a result, the Component developed and distributed a questionnaire to rural teachers which points to areas of weakness in the Normal school curriculum. Hopefully, the Ministry of Education will utilize the results of the questionnaire given to teachers as a base of information on which to make curricular reforms in the Normal schools.
- Because the methodologies utilized in the community training sessions seem to be beneficial, it is felt that these innovative methodologies should be studied in more detail for their possible inclusion into the Normal school curriculum. It is the writer's opinion that techniques of Non-Formal Education should be part of the training received by rural teachers in Bolivia.
- Perhaps one of the most significant accomplishments of the Non-Formal Education Component was in the creation of community interest groups whose general orientation and objectives are economic as well as educational development. Traditionally, when groups are formed in the community they are formed to serve a particular, short-term interest. The new groups, on the other hand, contained members who have been trained with specific skills and who are motivated to improve the general economic and social conditions of their respective communities.

Restrictive Factors

It is a natural tendency of human beings to focus on their accomplishments while attempting to overlook personal and organizational errors. In order to promote institutional growth, however, it is necessary to point out faults and deficiencies. For that reason, it is possible that this section of the chapter will receive the least attention and most criticism. It is hoped that this section on restrictive factors will not be viewed as being vindictive, but rather as constructive criticism in an attempt for institutional improvement.

Personnel

When speaking of restrictive factors of the Non-Formal Education Component, perhaps it is in the area of personnel that the most serious weaknesses occurred. According to the contract, the Component team should have consisted of ten Bolivian technicians and a director of the Component. Only in the year 1977 were there actually this number of personnel employed by the Component. During 1978 and 1979 the Component consisted of only eight technicians. By the end of 1980, this number had been further reduced to five. As a result, some of the specialities needed to achieve the objectives of the Component were not represented by technicians in those areas. In this manner, contract stipulations were not adhered to in that (1) the Component was not staffed properly in terms of numbers of technicians, and (2) not all of the required specializations were represented.

There seemed to be a lack of a consistent personnel administrative policy. Perhaps because of union pressures or other factors, it seemed that some technicians assigned to the Component lacked proper training and experience to perform the responsibilities assigned. The presence of unqualified personnel in the Component team caused the motivation to achieve Component objectives to fall. It should be noted, however, that there were team members who possessed the necessary skills to function and to accomplish their duties. It is thanks to the efforts of these qualified persons that the Component was able to accomplish at least part of the objectives stipulated in the Project papers.

Leadership

The work of the Component team also suffered because of an internal struggle for leadership. Although the leadership struggle was not overt nor in the open, it was, nevertheless, perceived by the team members. There was a division in the Component team between the Director of the Component and some of the other personnel who seemed to make no effort at improving inter-component relationships. The Director of the Component was not able to take advantage of his position of authority in accomplishing joint planning. Some team members looked on others with contempt, and time was wasted in defensive behavior. Inter-personal and group conflicts were the result.

It should be noted that this leadership struggle did not occupy the entire time of the technical assistants contract. Toward the end of

the Project, the Component acted as a unit and worked in a coordinated effort to achieve goals and to improve standards of work.

Logical Support

The Component team never actually received the additional personnel needed to accomplish these tasks properly. There was to have been provided an instructional materials specialist as well as a draftsman who could prepare expressive materials for the adults involved in Non-Formal Education.

The motivation on the part of team members was affected by a lack of audio-visual equipment. Possibly in no other part of the world would a team of professionals in the area of Non-Formal Education be expected to operate a program without a minimum of a sixteen millimeter movie projector or an electric generator. Yet, this was the case.

Due to seemingly poor administrative leadership, the Component had to operate without such necessities as lanterns for night community work. On the other hand, funds were spent on non-essential items such as encyclopedias which were not appropriate to the needs of the campesino population that this Project attempted to serve.

Field Work

The lack of funds for per diem and gasoline costs changed this Component and the rest of the project into a situation similar to the "sword of Democles." For this reason, the Component was unable to complete work such as follow-up, teacher work groups, community facilitator workshops, and rural community workshops. Less than 30 percent of the planned field work was completed due to the lack of per diem and money to buy gasoline. The lack of sufficient field work did not allow the Component team to experiment in real life situations, with the theories that had been developed in the home office.

Internal Support

Another restrictive factor for the Component was the lack of internal support for the philosophy and strategy designed by the team members. Part of the lack of support was due to a confusion, on the part of some, that the purpose of the Component was to provide community services. It must be remembered that it is easier to "construct things" than it is to educate people in the utilization and maintenance of the constructions.

The lack of familiarity with the fundamental philosophies of Non-Formal Education caused some people to be narrow-minded on the subject and to voice criticism and discouragement.

It should be mentioned that the Component did not have direct input in the creation of its work plans, but its administration and structure were entrusted to an outside person. As a result, the Component's work strategies were structured in a very ambitious manner. This can be illustrated by pointing out that the Component attempted to serve 22 "nucleos" which were widely separated both geographically and communicatively.

Despite the fact that many factors intervened which impeded the achievement of all objectives, many things were accomplished. The Non-Formal Education Component, with the collaboration provided by the radio and communications team, did achieve significant progress toward fulfilling the Component goals.

This section of the chapter has attempted to make constructive criticism knowing that no organization is perfect and that every organization can be more effective if strengths and weaknesses can be diagnosed.

Recommendations

Recommendations of Immediate Importance.

1. The Non-Formal Education Curriculum Manual, in accordance to its original design, should be completed.
2. Once the Non-Formal Education Curriculum Manual has been completed, a workshop for teachers should be planned in which an orientation to the use of the manual and its implementation should be addressed. The workshops should be structured so that groups arranged according to their specialities will be provided instruction in their areas of interest. In conjunction with the workshops, an evaluation should be designed with the objective of determining changes needed in the Non-Formal Education Curriculum Manual.
3. The research initiated in the early stages of the technical assistance contract concerning the use by teachers of Non-Formal Education methods should be completed. The resulting document could help the Ministry of Education in its current reform

efforts.

4. The methodologies utilized in Non-Formal Education should be documented in writing. The descriptions of methodologies should then be included in the curriculum of the Normal Schools in order to acquaint future rural teachers with the various Non-Formal Educational opportunities and alternatives available to them.
5. The documents prepared by the Component team together with the results from workshops, should be studied by the Rural Education II Project personnel, especially in the area of curriculum reform in the Normal Schools.

Long-Range Recommendations

1. Pilot models of Non-Formal Education should be established based on a document prepared by the University of New Mexico technician and the Director of Component III in 1980, which was entitled, Proposal for the Development of Pilot Models in Integral Education Within Non-Formal Education.
2. The knowledge and abilities which rural professors have in the area of Non-Formal Education and adult education should be researched. This research should be executed with the aim of improving rural teacher education in respect to the needs of rural populations.
3. The Ministry of Education should create Departments of Non-Formal Education at the district level.
4. Literacy programs among community interest groups should be established. These programs should have an economic as well as educational orientation which would encourage a high attendance rate.
5. Rural teachers should be trained in the basic needs of literacy education and adult education.
6. Teachers working in the field should be provided training in the areas of cooperative's management, Non-Formal Education,

and human relations. These areas should also be included in the curriculum of the Normal Schools.

5. Communications

Background

In order to clearly understand and justify the concept of the creation, existence, and function of the Communications sub-component, within the PDER-I, it is essential to expound on the purpose of the creation of such a sub-component, its responsibility, make-up, objectives, activities, and other pertinent factors.

Communications, a sub-component of Non-Formal Education, was designed to serve as a unit to reinforce and compliment the educational work done with adults in the 21 "nucleos" of the Project by the Non-Formal Education Team. The main strategy to be utilized was the production and broadcast of radio programs based on prioritized needs of "campesinos" which the Project serves. The sub-component was to be in a direct relationship with the work being realized by the Non-Formal Education Team in the various specialities. These specialities include Agriculture, Home Economics, Health, Recreation, and Basic Skills. Radio and other communication strategies served as a link between the communities and Non-Formal Education in the dissemination of messages, coordination of activities, entertainment, technical information as well as being a vital link between the Project and the communities.

Because of all the physical barriers which exist in the "Departamento de Cochabamba", namely, road conditions, high mountains, unfavorable weather, etc., radio was proven to be a viable way, and in some cases, the only way to communicate with the people the Project served. More important, perhaps, is the fact that close to 80% of the rural population, which Non-Formal Education was to serve in the education spectrum, is illiterate. Therefore, the audio approach to Basic Education was believed to be a viable approach to learning.

Up until the present, the Communications Team consisted of two Bolivian radio technicians from the Ministry of Education, and the Communications Specialist from the University of New Mexico. The primary responsibility of this team, as mentioned previously, was to produce and broadcast radio programs for the adults in the 21 "nucleos" of the project, as well as the production of audio-visual aids, training of teachers, community leaders, and community members

in the use of Project communication. Additional responsibilities will be dealt with in the section of activities of this report.

The Non-Formal Education Team has served as a resource in writing the content for radio in speciality areas mentioned previously, in relation to work being done in the field. The Non-Formal Education content was written into radio format and broadcasted to the rural communities. Other resources for the preparation of radio productions have been other institutions in the Cochabamba area, teachers, and people from the communities served.

The Communications sub-component, based on community input, needs assessment, and contractual obligations, developed and strived to accomplish the following objectives:

1. To reinforce and compliment the activities of the Non-Formal Education Component via radio and other communication strategies.
2. To develop and present workshops to train rural teachers, community leaders, and community members in the importance, use, and participation in mass communication.
3. To develop audio-visual materials to reinforce the work done in mass communication and Non-Formal Education.
4. To implement experimental mass communication methodology, materials, models, etc. in the field and to collect data to turn over to the Ministry of Education for the development of alternatives to Bolivian Education.

Activities

From the initiation of the Project until the present, the Communication sub-component, in coordination with the activities of Non-Formal Education, has undertaken a large number of activities based on its philosophy, goals, objectives, contractual obligations, and needs assessments of the Project's constituency. Because of the nature of the project, the activities to a large extent have been experimental in nature since a general goal of the Project has been to divorce from traditional practices and try to develop concrete alternatives, strategic methodologies, etc. as recommendations to be implemented by the Ministry of Education in its educational system.

The following include some of the most significant activities realized in Communications, and can be divided into seven broad categories, which include:

1. Radio production, and broadcast.
2. Cassette production, distribution and supervision of the Cassette Project.
3. Preparation and presentation of workshops in communication.
4. The writing of documents in Communications and the developing of a variety of materials including audio-visual aids, and photography.
5. The training of Bolivian Radio Technicians in various facets of communications.
6. The preparation, initiation and tabulation of several surveys, evaluations, and other pertinent office and field work data.

The first project activity undertaken by the Communications Team was a socio-economic study of the communities to be served by the Project. This study was done during the first months of 1977 and included a survey to determine which radio station in the Cochabamba area the people in the "21 nucleos" listened to most and which station had the most coverage and power. Radio "San Rafael" met the above characteristics, and thus it was contracted to broadcast the programs prepared at the Project studio by the Communications Team.

From May 1, 1977 to December 31, 1980, 721 programs were prepared and broadcast. These ranged from a half hour to an hour in duration, from Monday through Saturday, using 6:00 a.m. to 7:00 a.m. as the time assigned to broadcast. The contract between Radio "San Rafael" and PER-I stipulated a total of three hours of Project broadcasts weekly.

The radio programs broadcast were, as mentioned, based on the needs determined by surveys of the communities served, the work done by Non-Formal Education, and in coordination with other institutions and Project needs. The programs were in the area of health, agriculture, animal husbandry, basic skills, recreation, literacy skills, Non-Formal Education, Communications, and other skill areas within the spectrum of Non-Formal Education.

Forty-three per cent (43%) of the 721 programs were repeated because of need, request, and in many cases to reinforce technical information of special interest to rural adults.

Since the Project radio programs only reached 66% of the 21 nucleos, an alternate method of communication and instruction was felt to be necessary for those people where radio did not reach, or where the signal was weak. After much research and analysis of alternatives to meet this need, the Cassette Project was determined to be the most viable strategy to be utilized in this area of Bolivia. One strong consideration, besides the feasibility and cost effectiveness of using the Cassette Project alternative, was the fact that this method of instruction had never been used in Bolivia, and that it had strong possibilities of success as an experimental alternative for adult education.

Basically, the Cassette Project was initiated and functioned with the following concept and philosophy: The Cassette Project is a method or strategy to support and reinforce the work done in the field by Non-Formal Education. The method as conceptualized was based on interchange of messages, problems, and interests that originate in the communities the Project serves. The strategy permits the interchange of ideas or dialogue at a distance between the Project studio and the 21 "nucleos", and between the "nucleos" themselves. The Cassette Project, then, is a chain of participatory communication between the Projects Communication Center and rural adults via prepared educational cassettes.

Even though, the Cassette Project was originally intended to serve only the seven "nucleos" that the radio programs did not reach, it was initiated in 14 of the communities. Cassette recorders and educational cassettes were distributed to the 14 communities mentioned, and the community leaders in all 21 of the "nucleos" were trained in the use of the Cassette Project.

After various models were developed for the writing of content and the production of cassettes, 129 cassettes were produced by the communications personnel. The production took into account community input, the basic areas of Non-Formal Education, and often used "campesino" voices in the production. Many of the cassettes were also broadcast

over radio.

It was the intent, had the Non-Formal Curriculum Manual been completed, to prepare cassettes in a sequence based on the Curriculum Manual which was to be prepared by the Non-Formal Education Team and the rural teachers in Non-Formal Education areas.

A more detailed description of the Cassette Project, its philosophy, objectives, methodologies, cassette production, regulations, feed-back systems, training of community leaders, and teachers etc., is available in two documents written by the Communication Team entitled, El Proyecto Cassette: Modelo y Estructura, September 1979, and El Proyecto Cassette: Modelo y Estructura (Sinopsis) July 1980.

Workshops in Communications

In conjunction with workshops presented by Non-Formal Education, the Communications Team presented eleven workshops in which teachers, community leaders, normal students, and community members participated.

Approximately 200 teachers, who deal with Non-Formal education in the Project, 180 community leaders, 50 normal school students, and over 1000 community members participated in communications orientation and training. These workshops dealt with a wide spectrum of topics including the philosophy of mass media communication, games in communication, the use of radio and cassettes, and the general importance of the impact of communications. The main thrust of all the workshops was an orientation in communications, a means of improving social conditions, and a participation in the mass communication process.

A detailed account of the above-mentioned workshops, including the sites of presentation, dates, objectives, activities and results is available in the last section of the document produced by the Communication Team entitled, Panorama de Comunicaciones en el PDER-I, September 1980.

Documents Written and Materials Produced

Besides the documents mentioned previously, several position papers and articles were written to compliment and explain the communications work. Some articles were written to orient teachers on the

work being done in communications and how to implement this work in the classroom and communities. Others were written as a theoretical base, and still others were written to give people interested in the Project a panorama of the communications work, goals, and objectives. These include, but are not limited to:

1. "Educación Básica por Radio" ¿Una Estrategia para Bolivia?
2. "Los Medios de Comunicación Social en el PDER-I"
3. "Actividades, Objetivos, Estrategias, y Estadísticas de Comunicaciones"
4. "Los Medios de Comunicación y el Desarrollo Social"
5. "Teoría y Filosofía de la Comunicación Social"
6. "Comunicación Social"

In addition to the 129 cassettes produced, many materials, such as charts, pamphlets, drawings, photography, etc., were produced to support the educational cassettes and radio programs, and to document progress and activities in the field.

All of the documents as well as the materials produced are available in the Project's Non-Formal Education Component.

Training of Bolivian Radio Technicians in Various Facets of Communication

The writer feels that this section can best be dealt with more appropriately in the "End of Tour Report." It should be mentioned, however, that one of the major activities in communications was the training of the radio technicians in radio and cassette production, the writing of content for productions, workshop preparation and presentation, the preparation of yearly plans, materials development, and extensive other day-to-day training and technical help.

Preparation, Initiation, Tabulation of Surveys, Questionnaires, and Evaluations

Almost without exception, every major activity undertaken by the Communication Team had a corresponding needs assessment, survey, evaluation or progress report.

As mentioned previously, a need assessment was done in coordination with the Non-Formal Education Team at the initiation of the Project to serve as a basis for radio and cassette programs to

be produced, workshops to be presented, and appropriate materials to be produced.

Three radio surveys were prepared to determine the impact of radio programs in the communities, and to receive feedback to better productions. Only the first two surveys were completely tabulated and interpreted. The last survey, developed in June of 1980, was not completed because of a variety of Project problems.

In addition, several progress reports were developed documenting work accomplished in the field, evaluations of workshops, as well as the progress of the Cassette Project. The document entitled, Panorama de Comunicación en el PDER-I, September 1980, and Actividades, Objetivos, Estrategias y Estadísticas, December 1980, and others were written in part to describe progress and to act as evaluations of activities.

Accomplishments

In this section the writer will attempt to describe the most significant accomplishments based on the previously mentioned activities during the life of the Project.

Probably, the most significant accomplishment gained was meeting one of the basic goals established. That is the production of radio programs using the voices of the people in the communities served, in which the Communications Team served only as moderators. After various models were developed and experimentation was undertaken, a systematic procedure was developed to accomplish program participation from a cross sector of the "nucleos." The programs developed were in turn broadcast to all the "nucleos." By hearing their voices on radio, an incentive was created for others to participate in the communication process and encouraged the use of mass media as a method of improving "campesino" living conditions.

Experimentation was done with different types of radio programming and broadcasting styles including dialog, conference, "spots", etc. The various surveys showed that more than 70% of those who answered the surveys enjoyed the radio programs, learned more and put the information most into practice when the programs were

presented in short repetative "spots" of 30 seconds or less and in a bilingual content.

Another accomplishment worth mentioning was the training given to teachers, normal students, community leaders, and community members in the use, importance, and impact of communications as a useful tool in their work, as well as a possible change agent in their communities and lives.

Teachers and normal students received orientation on how to utilize mass communication effectively, how to produce cassettes and materials in classroom situations, and how to utilize mass communications as an aid to educate communities. Community leaders and members learned how to participate in radio programs. Community leaders learned how to manage the Cassette Project and direct radio and cassette forums. Perhaps, the major accomplishment gained in workshops and training was achieving a consciousness of how to effectively use mass communication and its importance as an alternative toward problem-solving and participation in the social process.

The surveys also gave the Project an input as to what was gained by the radio programs. The large percentage of those interviewed (more than 80%) from the target listening audience, indicated the following:

1. That they frequently listened to the programs.
2. That they benefited most from listening to programs in agriculture, in bilingual context.
3. That the programs in all the areas including Health, Home Economics, Recreations, etc., were educational and helpful in their everyday life; that they had implemented some of the information broadcasted.
4. An overwhelming percentage (89%) expressed the desire to participate in the radio programs.

Other indicators, such as frequent visits by community members to the radio studio to participate in radio programs and request cassettes, gave the Project positive feedback that the objectives were being met.

Restrictive Factors

During the life of the Project, countless reports, memorandums,

and documentation have been written on restrictive factors impeded goal attainment. The following are particular to the Communication sub-component:

1. Originally, as stipulated by the contract, a radio station was to be built at Vacas to serve the Project needs. Even though the need was established, the station was never built and radio program time had to be contracted from "Radio San Rafaél." As a result, the intention to train teachers, normal students, etc., in the use of radio was hampered. The radio contract with "Radio San Rafaél" was very restrictive and unflexible. Radio time was not offered at a prime time for rural radio listeners. Thus, the Project became a slave to the schedule, and many of the experiments and innovations which could have been implemented on radio were curtailed.
2. On at least a dozen occasions, radio equipment and materials, which were direly needed, were requested in writing. These included a cassette copier, a professional tape recorder, and a tape mixer, tapes for recording, audio-visual equipment, and other equipment necessary to quality, professional work. To this date, neither rejection or approval of this equipment had been received. The lack of equipment hampered the anticipated experimental activities and caused a shortfall in production goals, not to mention the quality of work produced.
3. On frequent occasions, and more often than not, planned trips to do work in the field, which was the Project's experimental laboratory, were cancelled because of strikes, road blockades, lack of available transportation and gasoline, and a variety of other factors. The Project has estimated that less than 20% of the plans developed to do field work were ever executed, because of the above reasons.
4. The administration of the Project was weak. In general, it seemed the chain of command was loose; job descriptions were never developed; accountability was never imposed;

personnel were often changed and they did not know their status as employees; financial procedures were difficult. The chaotic conditions affected work production, the achievement of objectives and goals, and created an atmosphere of complacency and lack of initiative.

Recommendations

The following recommendations in the area of communications are felt to be alternatives for Bolivian Education and are felt to meet the needs of Bolivian children, adults, teachers, normal school students, administrators, and anyone else interested in general educational processes. Some of these recommendations may seem too idealistic, too costly, or too difficult to implement. However, after experiencing a relative amount of work in the field, and after getting a feel for education with adults, youngsters and teachers, often under adverse conditions, it is felt that there is a strong chance for good results, if these recommendations are implemented. Besides, it is obvious that rural youngsters and adults deserve at least the following opportunities:

1. After evaluating the results and impact which radio can have in rural areas, a strong effort should be made to designate at least one radio station in every "Departamento de Bolivia" to broadcast educational lessons on a daily basis to children in grades 1 to 12, rural adults, teachers, and students preparing to be teachers. The lessons could be based on the school curriculum and could give special instructions and training to teachers and prospective teachers in the field. For adults, the lessons could be based on a Curriculum (Manual) similar to the one developed by Non-Formal Education. Each "Departamento" could have a radio station, specifically, for this purpose, with one or two radio technicians, a specialist each in primary and secondary education, curriculum, materials development, teacher training, and Non-Formal Education to develop instructional programs to be implemented in the rural areas, and to be reinforced by radio, other productions and communication strategies.
2. In conjunction with the radio station or communications

center and the above mentioned personnel, a mobile unit equipped with video tape facilities, tape recorders, projectors, a small educational library, cameras, and other visual aids could serve as a mobile instructional laboratory to implement the instructional programs in the field, conduct workshops for teachers and adults, produce communication programs, and evaluate instruction. This mobile unit could, then, return to the broadcasting center in each "Departamento", evaluate its work, broadcast programs produced in the field, and continue its cycle parallel to teacher training and instruction by radio. Such a venture would take a national effort, tedious planning and coordination. However, the results could be a dynamic, comprehensive, and viable educational experience much needed in a country such as Bolivia, where an educational vacuum exists because of the various factors: among them, the natural barriers of communication which effect the educational process.

- 3: The disassociation and lack of coordination in the broadcasting of radio programs assumed by institutions of Non-Formal and Adult Education, in the writer's opinion, very often permits the misuse of time and human and material resources. To avoid this, the Project's recommendation to the Ministry of Education, in conjunction with Communications, would be to designate a suitable hour in which all, or the major part of the radio stations which affect the rural area, would participate in a "chain of broadcasts" solely for educational purposes. This strategy would facilitate the ability of the "campesino" to be in a situation to listen to the programming. Logically, the education of the grand conglomeration of the rural people would be elevated.
4. In synthesis, the concept would be an effort with a totally different approach - using all the mass media, especially radio, in coordination with the educational system, to educate and to coordinate Rural Bolivian Education. Perhaps, this would be a partial answer to the "educational revolution", so widely publicized and discussed in Bolivia today.

6. Generalizations

The account of each component's participation in the project was described in this section. Each component went its own way with little collaboration or coordination. Each encountered, basically, the same type of problems and restrictions, stemming from an administration that had difficulty responding to the demands and dynamics of a Project of this nature.

Since there was little collaboration and coordination between components, it was improbable that the Project could ever achieve its central objective, that of developing a prototype of a rural educational system. Thus as a coordinated team driving toward one goal, the components failed; on an individual basis, however, there were some achievements.

Perhaps the best strategy for the continuation of the Project is to examine the components' achievements and analyze them not as individual achievements but from the perspective of inputs into a system, a rural school system, then determine what else needs to be done to finish the development of that prototype.

SECTION IV

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The team, in developing this report, wished to make one final contribution to PER-I and perhaps provide some criteria for organizing, managing and implementing future projects of this type. This report basically is a critical analysis of the development, management, and operations at the Component level of the Project. An analytical historical account was made in Section I. Great care was taken to be as objective as possible and the team wishes to emphasize that the analysis was of an organizational system; in no way does it wish to implicate personalities. Rather, the consensus is that regardless of the role player in any position, the Project would have functioned very much as it did simply because of organizational conditions. In order for any individual or group to have affected the functioning of the Project differently, it would have entailed an exhaustive analysis and the establishment of a different organizational structure.

The first section of the report described the foundations of the Project by examining, in some detail, the Project documents which were the "Green Book", the "Libro Plomo", the Loan Agreement, and the University of New Mexico Contract (GOB/UNM). It was pointed out how the Project was conceived perhaps too idealistically. Even if the socio-political conditions, the organizational climate, and the readiness of the target population to accept innovative changes had been ideal, it would have been a very difficult task to achieve all goals and objectives simply because of the Project's complexity and magnitude.

The first dysfunction in implementing the Project was that the primary objective, namely creating a prototype of an educational system for Rural Education in Bolivia, was never fully understood by those involved in the Project. Logically if this objective were not fully comprehended, the organizational structure geared to this end could not be established, nor would the functions of the system be adequately delineated or interrelated.

This Project, by its very nature, was to be an experimental/formative program requiring a decentralized administrative system in

order to effect the necessary changes in process. It demanded constant input from a formative evaluation process for continuous modification and streamlining of functions. Instead, a centralized structure was established which, in effect, made difficult the possibility of the overall Project success.

The flow of functions should have been initially planned, indicating the critical paths and alternative routes, the critical events, and the points of convergence of the different units operating within the Project. An attempt was made at "PERTing" Project activities, but the "PERT" emphasized final events making it impossible to take corrective measures of the processes as situations required. A Gant type of time line was developed at the beginning of the Project but was rendered obsolete in a very short time because of logistical delays. Henceforth, planning was done at the Component level with little coordination between components or other outside agencies. Often there was no sequential flow of activities from one year to the next.

Perhaps it was the lack of a master plan guiding time flow which prevented smooth expenditures of the budgeted funds. It is striking that over 60 percent of budgeted funds were neither committed nor disbursed until a year before the end of the Project. It was only three months before the end of the Project that 100 percent of funds were committed. This delay in effecting expenditures, sometimes caused by requisitions being returned due to not following proper procedures and more often due to the fact that requisitions were not made, was responsible for logistical delays which had a domino effect on the rest of the project. A latent consequence was that because of inflation, the delayed expenditures bought less for the dollar than if the expenditures had been made at the proper time.

The Project documents emphasized inter-institutional cooperation (e.g., between the Ministry of Agriculture, CEDED and its dependencies, SIDA, and SAED). This inter-institutional cooperation never happened. One must remember that cooperation with a project as a side activity is a chore not relished by outside institutions. Somewhere, either at the Ministry or CONDER level, sufficient authority should have been vested in order to coerce the needed

cooperation if that were not coming willingly. The result was that the institutions, which were supposed to cooperate with the Project, had their own programs and responsibilities and soon dropped intentions to cooperate with the Project.

Given the transportation conditions in rural Bolivia, the geographic area to be covered was too expansive for a project which required daily interaction between the project personnel and the participants in the field. Here again, ignorance of the primary purpose of the Project came into play. Time and time again the remark was made that the principal criterion in choosing the participating núcleo schools was to get the ones that were the farthest away, since these had generally not benefited from previous programs. Aggravated by delayed disbursements by the Bolivian government to provide transportation, field work was crucial to the success of the Project, was minimal.

The framework developed in the "Green Book" was not followed, and since the planning had provided for alternative routes, simple delays had a comino effect. Before long, the Project became embedded in a morass of activities waiting to be implemented. Thus, the flow of events had a very detrimental effect on the work of all the components because their activities depended on the infra-structure of buildings, desks, books, etc. in order to be carried out successfully.

As delays mounted, it became evident that the components would not receive the logistical support that their plans called for. It must be emphasized at this point that each component had developed a plan based on objectives spelled out in the Loan Agreement and with some consultation of the "Libro Plomo". These objectives may not have coincided one hundred percent with the "Green Book", but they were, nevertheless, in general agreement. Some preparation was called for that they might proceed with the experiment when the buildings and logistical support would be ready. The several components began to replan their activities in the absence of the logistical support initially anticipated.

One more factor which was not addressed in the general text should be added here. By the first part of 1980, it was believed in the Project, and to some extent by AID and CONDER, that the Project would

be extended at least until the end of the school year of 1981; and that there was a great possibility that it would be extended until 1982. This belief acted as a valve to relieve pressure and caused a relaxation of effort. Then, by the end of January, the Project personnel were confronted with the reality that the Loan Agreement would terminate as scheduled and the future of the Project was very uncertain. The relaxation had caused delays in all areas; and while a serious attempt was made to recover the time lost in some areas, it was impossible to do so completely.

No extensive reference was made to the part that syndicates (unions) played in the constant change of personnel. In effect, for a long period during the life of the Project, the syndicates used the Project as a vehicle for dispensing patronage. This factor was important in its overall effect on Project activities. In an economically poor situation, politicians by one name or another, often take advantage of a sizeable payroll to affect their patronage. In this regard, PER-I was no exception.

In conclusion, one has to recognize that the overall goal of the Project was not achieved. At the component level, however, each met with some success as was described in the previous section. Nonetheless, it must be emphasized that these were achievements of the individual components working in isolation with little communication, collaboration, or coordination with each other. Perhaps all the isolated accomplishments were in the same general direction, perhaps not. The Project, because of the lack of team effort, would never have been able to meet its objective of developing a prototype educational system for rural areas. An educational system is a system in the full sense of the word, not a conglomeration of individual endeavors which, by chance, may be moving in the same general direction.

With these considerations in mind, it is recommended that, for the continuation of the Project, an assessment be made of the accomplishments of each component or unit. The accomplishments should then be gauged as to their net worth towards the creation of an educational system for rural Bolivia. The work of each component should then be programmed, not as the work of an isolated unit, but as part of a team, each unit contributing its specialized input to the general

system.

For the purpose of establishing a model, a much smaller geographic area is required with a reduced number of nucleo schools participating. In view of the Project's experience in constant changing of personnel, the new staff members introduced into the Project should be trained in the application of the curriculum and the use of instructional materials. Administrators should be trained not only in the administrative functions of their own nucleos, but also in the cooperative participation of the Project as part of a larger unit. Very important to this endeavor should be the elimination of antagonisms, jealousies, and suspicions among components. Lastly, but of utmost importance, would be the establishment of a dynamic leadership in the administration. Besides taking proper care of the maintenance functions, the administration should coordinate the developmental work of the whole Project.

The general recommendation for future projects is that the planning, implementation, and evaluation of a Project be done within the framework of systems theory. By using systems theory realistically in developing and implementing a project, all aspects of the project, be they operational or administrative, can be treated both within its own parameters and within the parameters of the whole project.

ANNEX A

In agreement with the original contract, a draft of the final report was sent to CONDER and USAID for consideration. The following CONDER statements must be addressed.

"...Instead of trying to help establish an administrative structure adequate to the Project, or of trying to improve the present administration, the Contractor adjusted to the existing structure, both at the administrative and operational levels."

"...The Contractor, with rare exceptions, never came to a full understanding of the problems of Rural Education in Bolivia."

Participation of the Contractor in the Administration of the Project

Part of the answer to this criticism has already been included in the body of the report, although when the report was written, the criticism was not addressed specifically.

The report points out that the University joined the Project fourteen months after its inception, fourteen key months during which were proposed and established the administrative patterns to be applied throughout the life of the Project. It must also be pointed out that the structure and flow of responsibilities conformed to the organization of the Ministry of Education and Culture, a factor which, to a great degree, predetermined the organization and administration of the Project.

Therefore, it would have been almost impossible for the Contractor to establish an administrative structure different from the one adopted, even if its participation had started at the beginning of the Project. It would be illogical to hold such an expectation of the Contractor in a project of this kind; the main objective of the Project was the development of a model system for rural education, not the reorganization of a ministry in a foreign country. That is why the University, already late in relation to the rest of the Project, did not think it was feasible to reorganize the administration of the Project. The establishment of CONDER, within the Ministry of Education and Culture, as coordinator and administrator of projects

funded from abroad was a fait accompli, no doubt carried out very carefully and deliberately, according to USAID recommendations.

What the contractor did try to do was to outline processes that would facilitate and coordinate the activities of the Project.

Be it established that:

- José Gandert, Chief of Party, constantly recommended that certain processes be attended to in order to facilitate functions and to prevent the paralysis of progress. Unfortunately, most of these recommendations were not heard, which resulted in the partial stagnation and disorganization of the Project in the years following Mr. Gandert's withdrawal from the Project.
- Mr. Elías Bernal, Chief of Party between March 1979 and July 1980, tried to establish a system of coordination among various components; the answer to this initiative was that the responsibility for coordination fell entirely upon the components themselves, and did not have any priority in the administrative plan.
- The last Chief of Party, Dr. Horacio Ulibarrí, tried to improve communications within the Project, but was never able to achieve his goal. By means of yearly and quarterly reports, the various University consultants always mentioned the problems faced in the development of the Project, suggesting possible ways to overcome them. These suggestions were never followed, which raised the suspicion that the University's reports were never really read.

The history of the Contractor during PER-I was one of rejection. For several reasons, most of which are dealt with in the body of the report, the consultants were never treated as an expert team, nor did they receive due consideration. Rather, the different teams were treated as elements that had to be tolerated. Therefore, much of what the Contractor could have accomplished, at the administrative as well as the operative level, never came to be.

Understanding of the Problems of Rural Education in Bolivia

The Contractor never took the criticism that it didn't understand the problems of Bolivian rural education very seriously, rather perceiving it as an excuse on the part of the Bolivian technicians to reject the suggestions made by the University consultants. Some of the most common criticisms were:

- "They do not understand the Bolivian reality."
- "The suggestion is too abstract."
- "The suggestion is good, but it arrives too late."

The opinion that the Consultant group had of itself was that, at the cognitive level, they probably understood the Bolivian reality and the problems of Rural Education in Bolivia better or at least as well as the Bolivians themselves, due to their education, their previous experiences, and the fact that they had traveled throughout the country more than the majority of the Bolivian technicians; all of which gave them broader perspectives than perhaps the Bolivians themselves were able to bring into the Project.

All of the consultants, with one or two exceptions, had worked in projects of this kind in other Latin American countries, and although the details vary from one country to another, the nature of the problems is the same. The solutions to the problems tend to be of a similar nature, once necessary adjustments have been made. The consultants were careful not to impose their ideas, posing several alternatives (to accommodate local conditions) for consideration by the Bolivian technicians. It is true that many of these suggestions were more feasible and applicable than others; perhaps the fact that the consultants did not try to tell the technicians directly what to do created the belief that the Contractor did not understand Bolivian reality.

The writer must admit, however, that it would be presumptuous of the Contractor to assume that they understood Bolivian reality at all levels better than the Bolivians themselves. Natives to a society or a culture enjoy a lifetime of knowledge of that society or culture.

More important still, natives have developed and maintained an affect toward their socio-culture that a foreigner could never feel.

It is here, perhaps, that the virtue of the team work between technician and consultant acquires a relevant dimension. The consultant offers knowledge, theories and strategies for the development of a project and the solution of problems; the technician adapts the strategies to the realities of the situation. To achieve this, the consultant must have enough cognitive knowledge to be able to offer adequate, timely and feasible advice; the technician, with more global and affective knowledge, must select the best suggestion for the situation, keeping in mind all the variables involved.

In response to the criticism, the Contractor believes that it had sufficient knowledge of the Bolivian reality and of the problems of Rural Education in Bolivia to lend adequate and timely advice, advice which could have been adapted, in every case, to the Bolivian Rural Education environment.

Draft F

LBC

ISN 156

FD-AAI-748

Evaluates project to develop a prototype rural education system in Bolivia. Evaluation covers the period 1973-5/81 and is a final report by the contractor, the University of New Mexico/Bolivia.

Difficulties with changing governments (>), unions, and misunderstandings of project and its experimental nature in the 22 nuclear schools selected prevented achievement of the project's purpose. Logistical delays so beset the project that the original master plan was abandoned, relegating planning to the component level. Educational strategies and teacher training was restructured due to tardy disbursements.

Bottlenecks were caused by having the project director the nexus of all decisions, and serious gaps in communications--which hardly ever moved from bottom to top--fostered a closed climate and prevented adequate decisionmaking. The advisory team was denied legitimacy and largely ignored. A theoretical ~~disagreement~~ disagreement between the curriculum development team and the bilingual education (BE) team ^{spilled} ~~was controversy spilling~~ over into the teacher training program, causing teachers, even at the same grade level, to take opposing sides.

More successfully, a modified curriculum for grades 1-5, an upgraded normal rural school curriculum, and effective BE materials for Quechuan-speaking children in grades 1-2 were

developed; and non-formal education (NFE) achieved a level of recognition as a viable instructional alternative. The teacher education and in-service training component has successfully implemented new methods and trained specialists in communications, BE, NFE, and curriculum and materials development. Teachers and community leaders were trained by the communications effort and radio programs produced using the "Voice of the People".

It is recommended that: the achievements of each component (for each of which numerous recommendations are made) be integrated as part of an educational system for rural Bolivia; the project be tried in a smaller geographic area and with a reduced number of schools; administrators be trained in group participation; and that dynamic administrative leadership be established within the framework of systems theory.