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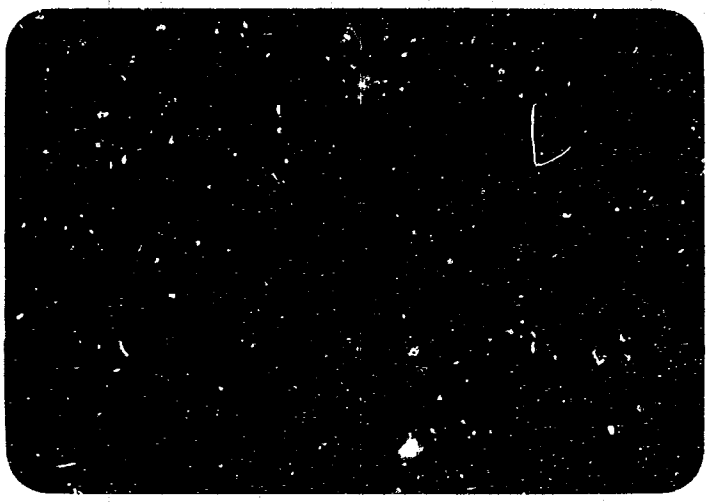

Education & Training / Environmental Studies / Urban Systems & Management / Evaluation & Computer Applications

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Socio
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Systems
Inc.

FINAL REPORT ON THE EVALUATION OF THE ELEMENTARY & SECONDARY EDUCATION GRANT & LOAN PROJECT IN PARAGUAY

For the

AGENCY FOR INTERNATIONAL DEVELOPMENT

May, 1973

Education & Training / Urban Systems & Management / Evaluation & Computer Applications

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Socio Economic Systems Incorporated

Final Report on the Evaluation of the Elementary & Secondary Education Grant & Loan Project in Paraguay

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The evaluator's overall impression of the Paraguayan educational effort and the AID project is a favorable one. Considering the constraints of the nation's economy, the political problems inherent in education and the state of technical skill among the educators, the public school system is making considerable strides in "tooling up" for educational improvements. In the field, teachers are ready to devote considerable effort to achieve a significant improvement. Given a continuity in the flow of leadership, training and support for their efforts, the outlook for their success is good. The new curriculum is an excellent piece of work. The evaluators made three general program recommendations: (1) a comprehensive assessment of Paraguay's current and future manpower needs should be undertaken; (2) an intensive training program in planning for all levels of personnel should be designed and implemented; and (3) a comprehensive self-evaluation and monitoring system should be designed in conjunction with key Ministry of Education (MOE) personnel. They also made many project specific recommendations on such matters as curriculum, training of educational specialists, textbook production, and the organization and administration of the (1) administration and finance, (2) regional educational centers, and (3) counselling and guidance departments of the MOE.

I. SUMMARY

A. Problem Statement

This report summarizes a one-month effort by Socio-Economic Systems, Inc. to evaluate the AID Elementary and Secondary Education grant and loan project in Paraguay and to make recommendations for project improvements and future inputs. The scope of work included the design of a logical framework for the project and a review and evaluation of the current project design, the first two years of project implementation, the curriculum and teacher training program, the textbook production program, the Ministry of Education reform, the University of New Mexico participant training program, and other donor inputs to the project.

B. The Evaluation Methodology

A set of explicit evaluation criteria and subcriteria were designed and utilized in assessing the three most important areas of the project: the MOE's business management and personnel administration, the curriculum development and teacher training, and the production of educational materials. By utilizing sets of simple, clearly-defined, quantitative rating scales, it was possible to objectively

assess each project component, to pinpoint specific areas of strength or weakness, and to provide practical feedback to the project staff, to MOE, and the Mission.

In addition to the quantitative performance assessment, a formative evaluation was implemented. This consisted of a series of structured interviews with several key unit chiefs. These interviews searched out critical problems impeding the progress of each project unit, stimulated the unit chiefs to generate desirable solutions to their problems, and to suggest practical means for overcoming obstacles to the proposed solutions. In this process, the evaluation team served as facilitators and technical experts, as appropriate.

C. Logical Framework

With the assistance of the project staff, the evaluation team designed a "logical framework" for the project. Specific numerical quantities, dates, and other technical specifications were not shown in this framework (see Appendix I) since, to date, no detailed Project Implementation Plan (PIP) has been developed for the various components of the Project. A partial PIP was available for the Participant Training component.

Once the PROP and PIP have been revised or developed in line with the evaluation findings, it should be a

relatively simple matter to include numerical and other measurable specifications in the proposed logical framework.

D. General Problems and Recommendations

A program of education reform is underway in Paraguay. It is intended to meet the quantitative and qualitative manpower requirements of the country and thus facilitate economic development. It may be expected that the polytechnical and preprofessional curriculum and educational policies would be based upon a detailed analysis of current and future manpower needs. Such a needs analysis has yet to be made.

It is recommended that a comprehensive national needs assessment be made to supplement the "Diagnostico" in order to answer such questions as:

1. What portion of the country's resources may reasonably be expected to be devoted to the education sector?

2. How many children can be educated with the projected available resources and for what period of time; i.e., for how many grade levels?

3. What specific occupations and actual jobs will be available to people with various levels of education?

4. What kind of educational system would be most cost/effective for the vast majority of children (more than 90 per cent) who drop out of school before the end of the sixth grade?

5. *What would be the most cost/effective system for educating the small percentage of children who will go beyond the sixth grade?*

It is recommended that such a needs assessment be undertaken by an interdisciplinary team of professionals (economist, curriculum specialist, educational systems technologist, and system analyst) and the results of this assessment be integrated into the educational reform process as soon as possible.

Some excellent general planning exists in the Ministry of Education (MOE), but there is little capacity to translate the general plans into detailed blueprints for action. In general, people at all levels have little if any experience or knowledge of how to do detailed planning of programs, activities, processes, and procedures. Although some people have received formal training in planning, there is little evidence of this training in the various departments including the Department of Planning and Statistics. For instance, there is virtually no systematic scheduling of activities (PERT, CPM, etc.), forecasting of important trends, monitoring procedures, and the ability to synthesize practical solutions to critical problems.

It is recommended that an intensive training program in planning for all levels of personnel be designed and implemented. This training should include such planning considerations and skills as needs analysis, goal setting, operational objectives design, setting of priorities, synthesis of alternatives, criteria development, data analysis, evaluation methods, decision-making, resource allocation

procedures, scheduling systems, control methods, forecasting, and systems and procedures for operations.

It is recommended that such training be implemented on an on-going basis in all major departments of the MOE and the Regional Centers. The training curriculum should emphasize the formulation and solution of the actual planning problems faced by each trainee. The trainers should be available to the trainees for consultation over extended periods of time, such as one year.

One attitude which pervaded discussions with personnel in the education establishment was the essentially false idea that, if a sufficient number of schools are built, teachers trained, textbooks designed, etc., the goals and objectives of the educational reform will be achieved. The concepts of self-evaluation and continuous objective monitoring of progress by student testing or any other means are considered unnecessary, if not undesirable, by key Paraguayan educators interviewed.

It is recommended that a comprehensive self-evaluation and monitoring system be designed in conjunction with key MOE personnel. The system should systematically and continuously provide timely and accurate information regarding student achievement at all grade levels, the effectiveness of educational methods and media, the performance of administrators in achieving their own objectives and agreed-upon standards, and progress toward the verifiable indicators contained in the logical framework. Such a system should provide the type of

feedback to operating personnel and administrators in all departments which causes substantial improvement in the allocation of limited resources, continuous upgrading of programs, improved vertical communications throughout the MOE, and more professional performance, particularly in the area of rational decision-making. A team of experienced evaluation technologists should be able to design such a system on-site in four months and insure its effective implementation in eight additional months via on-going training and consultation.

E. Specific Problems and Recommendations

Curriculum. Successful implementation of the new curriculum throughout Paraguay should proceed under the direction of a continuous and comprehensive inservice training program. This program would attend to the following problems with the suggested solutions:

Lack of sufficient training and involvement of teachers, administrators, and supervisors in curriculum development, modification, and implementation.

Train teachers, supervisors, and administrators in all zones to understand the behavioral objectives, instructional methodologies, the new textbooks, and tests developed for the new curriculum. Also orient them to the supportive services such as guidance and audio-visual aids which they have at their disposal.

Provide for periodic meetings where teachers, et al., can share ideas and methods.

Supervisors function almost solely as school inspectors in the traditional sense, lacking sufficient skills to assist teachers with the implementation of the new curriculum.

Define the supervisors' functions in detail and train them in supervisory techniques with emphasis on the new curriculum.

Consider other modes of achieving the supervisors' goals such as self-evaluation by teachers.

Use supervisors to follow up teacher training on the curriculum.

Assure a sufficient quantity of supervisors (with sufficient operating budget) to carry out their tasks.

Develop appropriate forms such as observational check lists which will assist supervisors to assist teachers with instructional improvement.

MOE plans do not provide for the permanence of the curriculum development team. It is necessary to provide leadership in this area.

Establish a permanent curriculum development unit in the MOE to provide leadership in the continuous review and refinement of the curriculum. This unit should also direct the activities of other units such as teacher training and textbook design which relate to the curriculum.

There is no provision for product or process evaluation with the curriculum. Key Paraguayan educators have doubt concerning the need for periodic and systematic testing to determine the impact of the new curriculum on the students. Such a viewpoint precludes the possibility of systematically upgrading the educational program.

A study should be undertaken by United States test specialists (in collaboration with key Paraguayan educators) to determine the need for an assessment system and its nature. This study should also serve to heighten awareness of the need and create a positive climate for an effective testing system. A formal evaluation of the effectiveness of the process of implementing the curriculum should also be designed and Paraguayans trained to implement it.

There is a lack of general supplies and equipment such as paper and ditto machines necessary to prepare simple teacher-made instructional aids.

Ascertain average school's need for supplies and equipment and make provision for their supply. Also, have teachers share their ideas and methods for preparing and using such materials.

There is a lack of goals, language development theory, instructional methodologies, and assessment techniques for dealing with bilingual education.

Establish a Bilingual Education Commission to develop a philosophy and long-range goals for bilingual education.

Develop assessment techniques to discern such matters as language dominance and learning achievement in Spanish and Guaraní.

Have bilingual education specialists provide the Bilingual Education Commission with a summary of research findings on language acquisition in bilingual communities and bilingual education programs. Supplement this summary with a research study on the Paraguayan bilingual situation.

Design and establish a language development program in accord with the goals established by the Bilingual Education Commission. This program should include the appropriate instructional methodologies and a program performance evaluation.

Establish various models of bilingual education and field test them. Have teachers study these models through direct observation.

Training of Educational Specialists. This section is considered an extention of inservice training. It attends, however, to training of specialists in fields which provide support for instructional activities, as well as the training of those who will exercise leadership for instructional improvement. The suggestions are in relation to the UNM training program, but would also be applicable to participants for this type of training in Paraguay or other countries.

Participants complain that the training stipend is inadequate for their needs.

Analyze and justify (or revise, if necessary) the stipend schedule according to the average need of the participants. Make provisions for special individual needs.

Participants are dissatisfied with the UNM training program.

Specify criteria for participant selection based upon a review and justification of the UNM training program. Include a determination of the optimum and feasible time allotment for general orientation to American education, instruction in theory for the various specialties represented, and on-the-job training.

Formally assess each participant candidate's need for training by testing, etc., and then apply strict selection criteria to each candidate.

Lack of adequate English skills and educational training handicaps some participants in the UNM training program.

Provide sufficient English-as-a-Second-Language training prior to training in the United States. Minimal skills should be posited and testing conducted to assure attainment.

Provide additional and accurate translations of important readings (e.g., research studies).

Provide participants with a brief orientation in statistics and research critique techniques for consumers (not researchers).

Establish a research publications unit in Paraguay to keep specialists updated on developments in their field. Consideration should be given to a study to determine the most cost/effective way of establishing this unit, since the procedure can well be replicated in other settings.

Devise and apply appropriate criteria for Spanish-language competency of the UNM project instructional staff.

Full effectiveness of participant training program is unknown.

Upon completion of training, compare each participant's knowledge of principles and processes in his field with the results of the test used to ascertain these matters for selection purposes.

After their return to Paraguay, conduct a formal assessment of participants' application of the knowledge and skills acquired in the training program.

Cost/effectiveness of the UNM training program is not known.

Relate current cost/effectiveness of the UNM training program to other modes of training participants. Also consider more training in Paraguay with nontraditional instruction techniques.

Part ipants are concerned over evaluation, grades, and UNM credits.

Justify individual and/or group evaluation of participants. Also define and justify a basis for awarding grades and/or UNM graduate credit for the participant's coursework.

<u>Textbook Production</u>. The following problems were noted with the suggested solutions:

Readers are not always related to children's needs and environment. Also, teacher guides to these books do not meet their use requirements.

Restructure the organizational scheme for book design by having textbook writers work closely with the curriculum development team.

Revise teacher guides (e.g., provide specific lesson plans for each unit of instruction covered by the books).

Include rural teachers with urban teachers on the writing team to assure that portions of the content are related to the rural setting.

Teachers are not certain of the best use of the new textbooks.

Use the writers to train teachers in effective use of the textbooks. (Writers will also receive feedback on the books' suitability from the teachers.)

Poor performance in terms of the books' design, printing, and illustrations was noted.

Hire more editors to proofread the books.

Hire better illustrators who are available locally in Paraguay.

Establish a textbook advisory committee with members from the curriculum, primary education, teacher training, and textbook production units. It should review the textbook production process and aid it to achieve its schedule and quality control.

Secure long-term technical advisors to establish comprehensive quality control procedures and oversee their successful application.

Reorganize the current book production process and assign realistic work loads.

Meeting projected schedule of textbook production and distribution seems to be a problem.

Revise current production schedule to reflect realistic production with given manpower or add the appropriate extra manpower.

Review and revise distribution schedule to assure on-time delivery of textbooks and guides.

Establish evaluation and monitoring system for the total production and distribution system.

Providing 70 per cent of the pupils with textbooks as soon as possible will be difficult. Only 30 per cent of the pupils will receive textbooks from the first printing phase.

Assure the design of an effective system for collecting fees for the textbooks and reinvesting them in textbook production.

Secure additional funds for increasing the publication and distribution of textbooks to all pupils at a faster pace.

Criticism of supplying only some pupils (30 per cent) with textbooks, yet charging fees for them.

Secure acceptance and support for textbook program and its funding scheme by mounting a public information campaign.

MOE has plans for establishing an elaborate and expensive textbook printing operation. Can existing private firms do the quantity and quality of printing with a lower per unit cost?

Determine probable MOE textbook production unit cost and compare with probable cost/effectiveness of private firms' production.

Organization and Administration of MOE Departments.

Administration and Finance: Poor communications between the various departments of the MOE.

Centralize all of the departments in one building.

Redesign the systems and procedures for routing and processing all documents between departments.

High level of attrition of personnel who learn higher level skills on the job. These personnel immediately leave for higher-paying jobs. Their own departments lose their investment of time and money in their training.

An explicit set of job standards and qualifications should be established and a serious effort should be made to enforce them.

A salary schedule should be established which rewards people on the basis of their experience and competence. Such a salary system would obviate the need for people to change jobs in order to obtain salaries commensurate with capabilities.

In those job classifications where an employee will essentially learn all of the job skills while on the job, a contract should be

entered into with him/her at the time he/she is employed. The contract should require the employee to remain on his/her job for some minimum amount of time after his/her formal on-the-job training is completed.

Lack of job specifications for unit personnel other than the Director.

A comprehensive function-responsibility analysis should be carried out. This analysis would define all of the major functions and tasks in the MOE and the various types of responsibility that are required in order to accomplish the functions or tasks.

The analysis would spell out all of the functions and tasks of each job classification (position) and the corresponding responsibilities. The major outputs of such an analysis would be:

* *A realistic table of organization.*
* *A current manpower loading plan.*
* *A current budget for manpower.*

Regional Education Centers. Maximizing the Regional Education Centers' influence as an agent of change in the schools of their respective zones. These centers were well staffed and equipped in order that they would be better able to demonstrate to the schools of their zone the most effective teaching methods, etc. Yet their contact with these other schools is not as extensive as desired.

Increase the regional centers' influence by allowing one-third of its faculty positions to be available for one year's residency by teachers of the zone. This would enable them to obtain a full grounding in the latest methodologies, etc., being employed at the center, which they could then apply at their own schools. Likewise, permanent

faculty at the center should be asked or required to periodically spend one year in one of the schools in the zone to assist in the implementation of the new techniques they helped to develop at the center. This approach to partial rotating of faculty positions should be tested at one of the centers planned for construction before suggesting changes in the organization of the existing centers.

In the Regional Education Center at Concepción, the buildings were poorly placed to avoid the direct heat of the sun which causes considerable discomfort during the warmer months. Also, the wiring was reported to be of such poor quality that power failure existed for one-half of the classrooms in the evening. An expensive replacement of this wiring was being planned.

The building designs should be reviewed with a specific checklist to assure attention to all factors such as the buildings' orientation to the sun. Also, rigid inspection procedures should be applied frequently during construction of the buildings to prevent non-compliance with the established specifications.

Counselling and Guidance Department. The important services of the Guidance Department are curtailed because the majority of the field workers are only permitted to operate on a half-time basis. Also, the guidance program outside of Asuncion and the Regional Education Centers is almost nonexistent.

Increase the number of guidance workers, place the existing teams on a full-time basis, or train the teachers and/or paraprofessionals to take up more of the guidance tasks under the direction of guidance specialists.

There is need for more attention to guidance-related topics in the curriculum and more emphasis on the home-parent education program initiated by the guidance teams to help solve some of the school problems related to the students' lives at home.

The Guidance and Counselling Department should be permitted a greater input in the construction of the new curriculum, and extensive discussions should be held to weigh the full value of formally designing a home-parent education program. In these discussions, attention should be given to the possibility of using more of the teachers' instructional time to carry out the major portion of the home and parent education program if its worth is established as highly valuable.

Currently, the Guidance and Counselling Department is translating and adapting foreign-made tests for use in Paraguay's schools. A high probability exists that these assessment instruments may not be appropriate for use in Paraguay, that the testing procedures employed may be flawed, or that the test results may be misinterpreted.

An assessment should be conducted on the validity and reliability of the new instruments, the test administration procedures utilized, and the basis upon which the results are interpreted.

II. BACKGROUND ON THE EVALUATION

A. Objective

As of February 25, 1973, Socio-Economic Systems, Inc. (SES) was contracted by the Agency for International Development (AID) to undertake an evaluation of the AID Elementary and Secondary Education grant and loan project in Paraguay and to make recommendations for project improvements and future inputs.

B. Brief Project Description

In October, 1970, the USAID Mission to Paraguay (the "Mission") signed a $4.2 million loan with the Ministry of Education (MOE) to develop various primary and secondary facilities in the Interior, to modernize curricula and to reform the administration of the Ministry. The loan provides $425,000 for technical assistance, including one curriculum advisor, one administration advisor, and one architect. A grant project began in FY 1970 to provide textbooks and $100,000 a year of grant technical assistance to complement the work in the MOE. Eight short-term advisors have been financed as well as a group of 24 Paraguayans training in a ten-month special course at the University of New Mexico.

To date, program and curriculum guides have been developed for the first three primary grades and the administrative reform plan has been completed. Construction has begun on rural primary schools and plans for the Superior Institute of Education and an advanced in-service teacher training institution are being finished.

Planning for the building of three additional Regional Education Centers is to begin in early 1973. UNESCO is assisting the program by equipping health rooms and workshops in some of the rural schools to be built with AID funds. UNICEF, OAS, and the Peace Corps are also providing inputs to the project.

C. Focus of the Evaluation

1. Preflight Activities. Prior to departure for Paraguay, the evaluation team leader travelled to AID headquarters in Washington, D.C. for a briefing on the project's background and on orientation to the Agency's use of the Logical Framework (see Appendix I) for evaluating developmental efforts. The pertinent documents available in the Washington office were examined for a better understanding of the project's scope and nature.

Upon return from the Washington briefing, the team assembled in Los Angeles to develop a systematic procedure for evaluating the various areas and to prepare a tentative logical framework for the project.

The team leader also visited the University of New Mexico (UNM) in Albuquerque to interview various Paraguayan educators undergoing training in order to play a key role in carrying out the current educational reform. Discussions were also held with the UNM training project administrators to discern the effectiveness of the special course and the problems which have developed in implementing the course.

2. Components Assessed. Upon arrival in Asuncion, Paragauy, the evaluation team reviewed the scope of work contained in the SES/AID contract with the Mission's Education Chief, Dr. Frank Mann. It was agreed that the team would:

a. Review the current project design, including the validity of existing goals, strategy, and courses of action. Assistance in the development of a proposed Logical Framework would also be provided.

b. Review and evaluate the results of the first two years of project implementation, including achievement of objectives and identification of problem areas. The areas to be included in the evaluation were administration, curricular reform, planning and evaluation, guidance and counselling, teacher training, and educational materials production. In particular, the curriculum would be reviewed for its relevancy to rural life.

c. Review and evaluate the textbook program, especially with regard to its conformity to the curriculum changes. Suggest the necessary actions to overcome obstacles hindering efficient implementation and make recommendations on the textbooks for the fourth, fifth, and sixth grades to be produced under AID loan funds.

d. Make recommendations on how to improve the Ministry's planning and policy making capacity. This will include the needed external inputs to accomplish the recommendations.

e. Analyze other donor inputs into the education program (UNICEF and UNESCO) and make suggestions for improved coordination.

f. Determine the inputs that will be needed to accomplish the recommended objectives in each area of endeavor.

g. Evaluate Government of Paraguay performance, including the adequacy of GOP financial and other inputs.

h. Evaluate participant training of the 24 Ministry employees at the University of New Mexico.

The only substantial change in the interpretation of the SES/AID contract concerned item "b," which previously included "educational statistics" as one of the areas of

evaluation. Since the Mission is making provisions for a specialist to critique this area in depth, it was agreed that the team would not directly evaluate such concerns as the availability, accuracy, and usefulness of educational statistics. Instead, it would comment on them, when appropriate, as their suitability, etc. touched upon the areas under assessment.

3. Documents Perused, Individuals Interviewed, and Operations Observed. A detailed list of the documents examined, persons interviewed, and sites visited is provided in the appendix of this report. In particular, the following papers were examined in detail: "Paraguay--Educational Development Program" (AID-DLC/P-914); the MOE's "Diagnostico" (i.e., Needs Analysis) and its "Twelve-Year Development Plan;" the "Alliance for Progress Loan Agreement;" "El Programa de Estudios" (the revised first grade curriculum); the newly published primary school textbooks, and Parts I and II of the "Anteproyecto de Reconstructuracion Administrativa" (i.e., Proposal for an Administrative Restructuring of the MOE). These documents were scrutinized for the intended scope and direction of the total GOP/AID education effort, the emphasis being given to critical components of the effort and the particular strategies employed, as well as the time tables for their implementation.

In relation to the areas being assessed, the evaluation team interviewed the key persons involved in leadership roles and the management of resources allocated for the major developmental effort. At the highest level of the toal MOE/AID program, the AID Education Chief, Dr. Frank Mann, the Minister of Education, Dr. Raul Peña, and the Chief Administrator of the Twelve-Year Development Plan, Professor Jorge Centurion, were interviewed and consulted. In addition, section chiefs at the MOE concerned with business management, personnel administration, planning, the Regional Education Centers, textbook production, and the curriculum development team were also interviewed.

In the field, extensive discussions were held with the UNM technical advisors, directors of the Regional Education Centers at Villarrica, San Lorenzo, and Concepcion, the Director of the Superior Education Institute, the Directors of primary and secondary education at various units, teachers, and several parents. Also queried were directors of educational projects in Paraguay for UNESCO, UNICEF, OAS, and the Peace Corps. Preceding these interviews, the evaluation team was also fortunate in receiving a brief orientation to the socio-economic and political conditions in Paraguay from Ambassador George Landau, USAID Mission Director John Oleson, Mr. Robert Adler (Economic Analyst), and Mr. John Simms (Political Affairs Officer). Mr. Ronald Witherill, Chief AID Program Officer, also spoke briefly on the use of the Logical Framework.

The bulk of the meetings were held in the office of the respective individuals cited above. In addition, each of the evaluation team members travelled to a variety of sites to observe various facets of the instructional program and the educational reform in operation. The visits were diverse with respect to grade levels and programs such as primary and secondary schools, the Superior Institute of Education, the textbook production center, inservice teacher training sessions, and the guidance and counselling program. These observations and discussions were held in Asuncion, as well as in rural settings and in poverty zones, as well as in schools serving the middle and upper socio-economic classes.

4. Limitations of the Evaluation. Although the evaluation team believes it covered all the major areas sufficiently to warrant their evaluative generalizations, it also felt that these generalizations could have been asserted with a greater degree of confidence had the team been able to expand the size of the sample of educators interviewed and sites observed. The constraining factor in expanding this sample, of course, was the brief time available.

In part, the limitation of time was imposed by the unavailability of all of the pertinent documents prior to the team's departure. It, thus, became necessary for

the team to spend some of its initial time in Paraguay familiarizing itself with the basic documents on the project. In particular, the absence of a Project Implementation Plan (PIP) for the Elementary-Secondary Project handicapped the process of developing the logical framework and extended the desk time of the team leader.

The absence of several key persons also appears to have diminished the exactitude of the team's work. Several unit chiefs, such as the MOE's Director of Guidance and Counselling, were abroad for advanced inservice training sessions. The team, therefore, had to rely on their subordinates for information and viewpoints concerning their unit's operation. It is also regrettable that the team leader was unable to secure additional time from the program officer assigned to the education project due to her previous commitments. Her final review of and insights on the logical framework developed would have been welcome.

It is unfortunate, too, that time and other constraints did not permit the elaboration of the logical framework prior to the team's departure from Paraguay. It would have been more desirable to have had the Mission's inputs and review of the detailed framework in order to insure the relevance and accuracy of the logical framework.

Finally, it is important to note that two years after the project was initiated, the implementation of its more important aspects is just on the verge of beginning. During the evaluators' visit, the first batch of textbooks had just been produced, the revised curriculum for the second and third grades had just been sent to the printer, and the first group of teachers just completed an inservice training session orienting them to the new curriculum's use in the first grade. In addition, the MOE had yet to choose one of several alternative organizational patterns designed to vastly improve its services and leadership to teachers and students in the field. Other major tasks in implementing the educational reform also awaited attention.

The point to be made, then, is that the total educational reform, and the supporting role of the AID project in this reform, is essentially in transition at this time from the project planning and design phases into the implementation or "take off" stage. For this reason, it is also important to stress that this evaluation report is focused primarily on assessing the products of that planning and design, as well as the limited implementation steps to date. Little can be said at this time about the success realized in utilizing these products (e.g., the new curriculum, textbooks, and decentralized MOE operations) to

achieve the necessary conditions for the educational reform. And nothing can be said about the final and most significant product of the reform--the changes in knowledge, skills, and attitudes of the students.

D. The Evaluation Methodology

1. Use of Explicit Evaluation Criteria for Critical Areas of the Education Project. In assessing the AID project, SES employed matrices of evaluative criteria on what it judged to be the three most important areas of the project: (1) The MOE's business management and personnel administration structure and procedures; (2) Curriculum development and the corresponding inservice training of teachers to enable them to effectively implement the new curriculum; and (3) The production of educational materials.

It will be noted that the use of these matrices provides comprehensive, objective, explicit, and detailed criteria upon which to base a judgment relative to the total component or to its respective subcomponents. The use of these evaluative criteria thus allows a complex area to be broken into discreet, manageable items which can be rated with respect to known standards or idealized models. By looking at each criterion, which is defined to be conceptually independent of all the other criteria, it is possible to bring appropriate expertise to bear on rating each aspect of the project. The matrices are especially

useful since they explicate the subcriteria defining the broader criteria used to judge subcomponents.[1]

A significant feature in the use of these matrices is their provision for weighting the relative importance of the various subcriteria so that the rating in the total component reflects the true value of the individual elements in the component. A brief explanation of the steps taken to evaluate the management and administration of various MOE departments is provided as an illustration of the matrices' utility in the section of this report devoted to "MOE Departments."

2. A Formative Evaluation Technique. One objective of the SES evaluation was to carry the unit chiefs being interviewed through a process which would surface the critical problems impeding progress in achieving their unit's objectives. Furthermore, the process would stimulate the chiefs to generate solutions to their problems which were effective, timely, and feasible.

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1. Although time did not permit the development of detailed matrices for the evaluation of other components, the assessment of these other components was also based upon explicit criteria. These criteria were derived principally from an examination of the objectives and procedures posited for those particular components and the evaluator's judgment concerning additional features or procedures required to effectively operationalize the components.

Basically, the formative evaluation process entails the active participation of the chief in delineating the evaluative criteria, in using his judgment to weigh the subcriteria and in rating his unit's progress in achieving its set goals--in terms of the criteria posited for success.[2] Specifically, the unit chiefs were asked to provide the following kinds of information:

* What are the major goals and objectives of the educational reform?

* What do you perceive to be the major tasks that you perform as chief of this unit?

* What are the major functions of your unit at the present time and what functions do you think it ought to carry out in the future?

* What are the major problems that you perceive in your unit? Please give some illustrations for each problem.

* Now that you have enumerated the major problems, imagine that you have unlimited authority to make whatever decision you deem necessary and that you have unlimited

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2. This process was carried out without reference to the evaluator's own use of the criteria, which yields an independent rating for that unit's effectiveness. It is then instructive to note the congruence between the chief's self-rating and the SES evaluator's independent rating.

resources to accomplish your objectives. What possible solutions would you suggest for each of the problems that you have mentioned?

* Now that you have suggested a number of ideal solutions, would you indicate what obstacles you think stand in the way of implementing these ideal solutions? If you feel that your superior will never agree to your solution, or that there is insufficient budget available, or that the political climate in the MOE is not appropriate for such action, or any other realistic obstacle stands in the way, please feel free to say so.

The content and sequence of the questions were intended to accomplish a number of objectives. First, it was desirable to obtain the chiefs' perceptions, aspirations, and frustrations related to the activities of their unit. A second objective was to give them an opportunity to verbalize some of the problems that they considered to be of importance and which affected their working conditions. Once a real or imagined problem was out in the open, each interviewee was "forced" to consider idealized solutions to the problems. Since we asked for idealized solutions, most people were able to come up with some excellent suggestions. The third objective of the interviews was to assist the unit chief in selecting among alternative solutions to his problem(s) by rank ordering these solutions in terms of explicit criteria such as cost,

political feasibility, cultural acceptability, and the availability of technical personnel, materials, facilities, and methodologies. Thus, these criteria provide him with more defensible reasons for requesting the additional financial or personnel resources necessary for him to implement a given solution.

III. CURRENT PROJECT DESIGN

A. Context of the Project

Currently the GOP/MOE is in the initial phase of an educational reform. Key education officials such as the director of the planning department and the MOE's 12 year plan for educational development indicate that the major goal of Paraguayan education should now be to produce a larger quantity and better quality of technical-vocational manpower at both preprofessional and professional levels.

It was asserted by the MOE that the educational system has heretofore produced too many individuals schooled principally in the humanities and trained in the traditional professions such as law and medicine. One consequence of this educational emphasis is that many high school and university graduates leave Paraguay because they can find no employment to suit their training. Also, the educational system and the culture have traditionally viewed technical-vocational occupations as inferior, hence few individuals who aspire to position and status are motivated to pursue training in these fields. In addition, the assumption has been accepted by the MOE that Paraguay's economy will increasingly require large numbers of technical-vocational personnel. It is felt that presently the supply of this manpower is inadequate and its quality doubtful.

Essentially the AID elementary-secondary project is viewed by the evaluators as being in support of the MOE goal to increase and upgrade the technical-vocational manpower supply. In its major document justifying AID assistance, "Paraguay - Educational Development Program" (AID-DLC/P-914), it is asserted that, "the major objective of this loan is to improve the quantity and quality of Paraguay's manpower through improved education." (see p. 10 of Annex I). In addition, the AID grants are viewed as supplemental to the loan, hence the total loan-grants project is taken to be an integrated effort in support of the MOE's long range manpower training goal.

In the process of relating the AID project to its sector goal and discerning its purpose and products a tentative logical framework was developed. This logical framework also views the project's structure and purpose as designed to assist the MOE to achieve its long range manpower training goal. (This development of Paraguayan manpower through formal education is also viewed as a major AID sector goal.) The details of how this support is to be implemented and validated are outlined in the proposed logical framework.[1]

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1. This tentative logical framework was developed in collaboration with the Mission personnel in Paraguay. Upon return to the U.S. it was refined and is offered in this report as a final draft. (See Appendix I .)

Specifically the AID elementary-secondary project is viewed as a means of producing individuals with the basic educational background required for success in the technical-vocational training programs. In a sense, the project's purpose (in relation to the MOE long range goal and the AID sector goal) is to assure some of the prior conditions necessary for the production of trained manpower. The sufficient conditions must of course depend upon the quantity and quality of the technical-vocational programs.

B. Adequacy of the MOE/AID Goals

Viewed as one of the major goals of education in any national setting, the aim of MOE to help meet Paraguay's quantitative and qualitative manpower requirements is considered a vital goal of the highest priority. The AID project in support of this goal is likewise considered to be of value to the extent that it facilitates the achievement of the MOE goal. However, the major flaw in Paraguay's educational development plan is that the system is being reorganized to meet needs for which specification of type and degree do not yet exist.

Logically an assessment of the manpower needs for the Paraguayan economy should have preceded the design of a system to meet those needs. Unfortunately no such assessment was conducted. The MOE is now in the position of planning technical-vocational programs without knowing if the graduates of specific programs are likely to find employment.in their area

of training. Without the manpower needs assessment the ministry's programs may simultaneously overproduce skilled workers in some areas and underproduce in others. Obviously the critical need now is to conduct this needs assessment in order to better direct future planning in these areas.

C. Adequacy of the Project Design and Strategy

As suggested above, the AID project relates to its sector goal by providing assistance to MOE on a significant education goal. The specific activities of the project, however, are viewed as being indirect or foundational activities which will make possible the achievement of MOE's long range goal. These activities will assist the elementary-secondary schools to provide the basic and polytechnical background which is considered prerequisite to a successful manpower training program.[2]

Above and beyond its relation to manpower development, the new Paraguayan elementary-secondary program stands by itself as a significant means of promoting human development. Its intended extension of educational opportunity, curricular reform, administrative reorganization, improvement of teacher

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2. Basic knowledge is defined here as the prevocational knowledge, skills and habits in elementary arithmetic, language arts, health and social relationships necessary to function as a productive citizen. Polytechnical education is defined here as the rudimentary knowledge, skills, habits and attitudes in the sciences and commercial and industrial arts necessary for adaptation to instruction and/or work in a variety of skilled technical-vocational fields.

training, etc., offers promise of vastly improving the availability and quality of education in Paraguay, especially in the rural areas.

The AID elementary-secondary project design is judged to be excellent in that its assistance is directed at the critical elements of the Paraguayan educational reform. For example, the technical assistance provided for revising the curriculum, developing an improved MOE organizational structure, training key Paraguayan educators to implement the reform plan and the funds for school construction greatly increase the probability that the reform will be successful. Without this technical assistance little hope could be held for a successful educational reform. Details concerning the scope and quality of this technical assistance are provided in other sections of this report.

In the implementation of the educational development plan the use of the regional centers as the major agent of change appears to be an excellent choice of means. AID assistance in outfitting the centers for this task is also viewed as one of the most critical inputs required for a successful educational reform. The fact that these centers service the rural areas of the nation also means the reform will be attending to the development of the population in its most important economic sector - agriculture.

In assisting the MOE, AID also appears to be exercising caution and control in allocating U.S. physical and personnel resources. By participating in the MOE's coordinating

committee for implementing the 12 year reform AID is better able to coordinate its assistance plans with those of the ministry. Also, in its agreement with MOE, AID has reserved the right to inspect and monitor the use of U.S. resources before approving further expenditures or use of these resources. Generally, AID is to be commended on its provisions for coordinated planning with the MOE and the safeguards to assure that U.S. inputs are appropriately employed.

In short, the project design and strategies are appropriate to the needs of the country and the long range plans of the Ministry of Education. However, since the Ministry's internal reorganization plans have yet to be implemented, the overall validity and effectiveness of the project's plans will have to await evaluation at a future time.

IV. SPECIFIC FINDINGS AND RECOMMENDATIONS

A. Curriculum Development and Teacher Training

1. Introduction

While this portion of the evaluation has to do with the current status of USAID's performance in the area of curriculum and teacher training, it is impossible not to involve Paraguayan documents, goals and activities. This situation exists because USAID's present mission in education historically developed out of studies of national needs and goals arrived at by Paraguayan administrators and researchers.

Consequently, throughout the report, reference will be made to Paraguayan sources as beginnings and guides in the development of curriculum and teacher training.

A global view of this section of the evaluation presents a three-tiered scheme of documents and activities as follows:

TIER	
I	DIAGNOSTICO DEL SISTEMA EDUCATIVO, VOLUME I and PLAN DE DESARROLO EDUCACIONAL 1969-1980, VOLUME II
II	PROPOSALS, PROJECT AGREEMENTS RELATING TO EDUCATIONAL REORGANIZATION AND DEVELOPMENT
III	FIELD IMPLEMENTATION OF OBJECTIVES IN TIER II

The volumes named in Tier I respectively represent a description and analysis of Paraguay's educational system and a plan for the development and restructuring of Paraguayan education.[1]

Out of these two volumes and as programmatic extensions of these came proposals and project agreements stating specific objectives to be implemented throughout the system. The first two tiers represent a well articulated system of interrelated objectives. These constitute the official sources for objectives in this report.

Intervening between Tier I and II documents are a variety of other communications and reports. These, specifically or in general, list the objectives of educational development and reform in Paraguay. Most notable are...a letter from the Minister of Education (Dr. Raul Peña) to Mr. Peter Cody, dated 6/4/70 and the study of Paraguayan educational needs, TOAID 312.

At the Tier II level, there are also technical and general reports provided by outside advisors. These, while they are not official, contain specific analysis of needs and recommendations which further refine the goals and objectives in the legal documents in Tiers I and II.[2]

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1. Exclusive of the University system.

2. In addition to the documents perused, a variety of educators in various settings were interviewed. A detailed list of both the documents examined and the educators queried are listed in Appendix II.

Finally, Tier III is the source for the "reality" portion of the evaluation. By determining what, in fact, is occurring in the field, assessment can be made of the extent to which the objectives contained in Tier I and II are being realized.

2. Goals of the Curriculum Development Effort and Pertinent Teacher Training

In this portion of the report are described the general goals which are supposed to guide curriculum development and the teacher training necessary to implement the new curriculum.

The major thrust of reforming Paraguayan curriculum and teacher education calls for an educational program which will prepare its participants (teacher trainees) to develop the trained manpower required by the rapid socio-economic change taking place in the country. Several subsidiary purposes emerge from this goal:

a. To reduce the numbers of early school-leavers
b. To raise the median grade level completed
c. To increase school holding power by
   -- using the student's dominant language as the medium for concept development
   -- decreasing rote learning and increasing active participation of the students
   -- increasing interest in school work by using the learner's environment as a source of subject matter and educational materials

d. To initiate programs of a technical-vocational nature

e. To modify teacher preservice preparation so that a growing cadre of technically and professionally trained teachers comes to replace the large number of underqualified teachers on the staff.[3]

f. To develop appropriate skills in those teachers who will implement the new curriculum which is currently in use at the 1st grade level. (Curricula for the 2nd and 3rd grades are now being printed and work on the curricula for grades 4, 5 and 6 will begin in April.)

3. Curricular Reform

Curricular reform can encompass all levels of education from primary to post secondary studies. In the Paraguay Plan of Educational Development, it means all of these levels, including teacher preparation, which will be treated separately.

Curricular reform as treated here will concern itself with primary (grades 1 - 6) and secondary levels (grades 7 - 12) only. Emphasis will be placed on the primary level, specifically in grades 1 - 3. It is here

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3. A further condition emphasizes the importance of this objective, namely, the existence of a large number of unemployed graduates of the teacher training system. Because of this condition and the above objective, there is a moratorium on training teachers while they are upper secondary level students, with a corresponding plan to shift teacher preparation to a span of 2 - 3 years at the post-secondary level.

that the most exhaustive reforms are being initiated.

The questions posed by the evaluator were as follows:

a. Has there been curriculum development?

Everyone interviewed who was asked to address this question agreed that there has been exhaustive curriculum development at grades 1, 2, 3. The course of studies and teacher guide were received with enthusiasm by the teachers.

In addition, the evaluator reviewed the curriculum and teachers guide and found it to be especially well organized and complete, to the point of including evaluation measures for each lesson plan.

b. Has development been in a modern direction?

The persons interviewed were enthusiastic about the "newness" of the curriculum. All were asked to indicate in what sense it was new. A sampling of their opinion suggests the curriculum is new or different because:

-- it has integrated subject matter

-- it has a practical focus

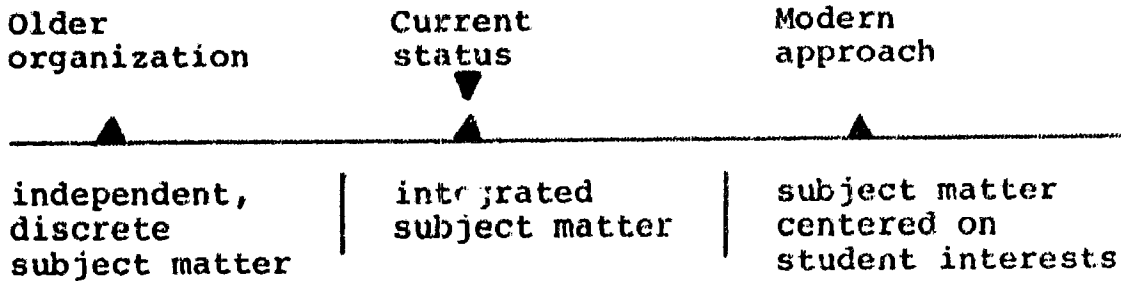
-- it has brought life and reality to the children in their education

-- it focuses on modern math

-- it has more student centered activity

-- it has established and emphasized priorities for primary education, and stressed teaching by objectives

Is this "newness" modern in direction? Below is a scale that can be used to indicate the direction of movement in curriculum reform in Paraguay.



Both on the basis of the comments related and the visits made by the evaluator to observe classroom organization, the curriculum has moved away from unrelated bits of subject matter toward a more interrelated approach. An examination of the new curriculum reveals that the previous diversity of subjects taught in Grade One has been re-organized into 3 main topics.

c. Has modernization and implementation occurred at the grade levels promised?

Evidence from interviews, personal visits by the evaluator to three Regional Centers and a visit to the summer inservice training program for curricular implementation confirms a positive reply to both questions.

d. Has the curriculum been made relevant to the life of the children?

Three subquestions present themselves:

(1) Is the language of instruction suitable to the children?

Teacher and center director's comments agree that a major policy shift has occurred with respect to the use of Guaraní referred to in the Plan de Desarrollo as, "the vehicle of communication and national tradition..." Where Spanish has been used exclusively, the teachers now have the freedom to use either language, depending on which is the child's dominant language. However, despite the importance given bilingualism, the use of Guaraní has not been paralleled by an analysis of a general philosophy of the function of the language within the curriculum or the development of instruments to determine students' language dominance. Further, nobody has fully developed an historical view of language maintenance, loss or shift in Guaraní, nor has anyone concerned himself with the latest theories of language acquisition.

Concerning the first item mentioned, there are four current models for bilingual education expressing four general philosophies or value judgment concerning language:

-- Transitional Bilingualism where the home language of the child is employed in concept and skill development while the public or official

language skills are being developed. This position opts for a phasing out of the home language as a vehicle of instruction and a transfer to the official language.

-- Partial Bilingualism where abilities to express ideas in a nontechnical fashion are equal in both the home and public language.

-- Monoliterate Bilingualism where the student is developed in one language (usually the public one) to the point of considerable ease in reading.

-- Full Bilingualism. The condition characterized by equal highly developed ability in both the home and the public language. Interviews indicate that at present, the type of bilingual program being employed is the transitional type. There are no indications that this expresses a centrally developed philosophy, an inclination on the part of the teachers or a desire of the community being served.

With respect to language dominance, if the function of Guaraní is to aid in concept development while sufficient skills in Spanish are being developed, then the language ability of the child in Guaraní becomes a critical variable. There is no language dominance instrument either in development or planned.

Language maintenance and shift has been well studied in the U.S. Some languages, such as Swedish, have disappeared. Others are judged to be showing signs of demise. What is the prospect for Guaraní? Shift or maintenance? What are the signs of shift and maintenance? What responsibility do the schools have regarding shift and maintenance for the Guaraní language? There are no answers.

Finally, if the schools are responsible for developing literacy in Spanish, what language learning theory supports classroom practices? What practice is in fact used? Again, answers are needed.

(2) Are the curriculum materials used relevant to the children's daily lives?

(3) Does the content employ topics, examples, etc., from daily life?

Evidence for answers to both of these questions is derived from four sources:

-- teacher interviews

-- evaluator visits to the classroom

-- evaluator visits to the new curriculum training site

-- examination of the curriculum and the teacher's guide for that curriculum.

All four support a positive answer to questions (2) and (3). Teachers were observed preparing

objects out of local materials at the Villarrica training site and classrooms displayed objects made of local materials. Teachers interviewed agreed they were taught materials and content development. Wherever possible the new curriculum uses both local content and materials in the lesson plans.

4. A Quantitative Assessment of Curriculum Development

In addition to the personal interviews, a series of objective or verifiable indicators (criteria) for both teacher training and curriculum were developed. For each indicator (criterion) subcriteria were further specified. Table I contains the subcriteria used to rate the five components basic to the process of curriculum development.

Quantitatively, the total curriculum development effort received an average rating of approximately sixty-six on a scale of zero to one hundred. The five components or major criteria are also depicted graphically to illustrate the five ratings. Specifically, qualitative statements concerning each of these components are as follows:

a. Teacher Involvement

Currently the best approach to curriculum change and/or development is one which can be labeled a "bottom-to-top" procedure. That is, one in which extensive samplings of needs precedes the development of objectives, and these latter precede curriculum writing.

TABLE I

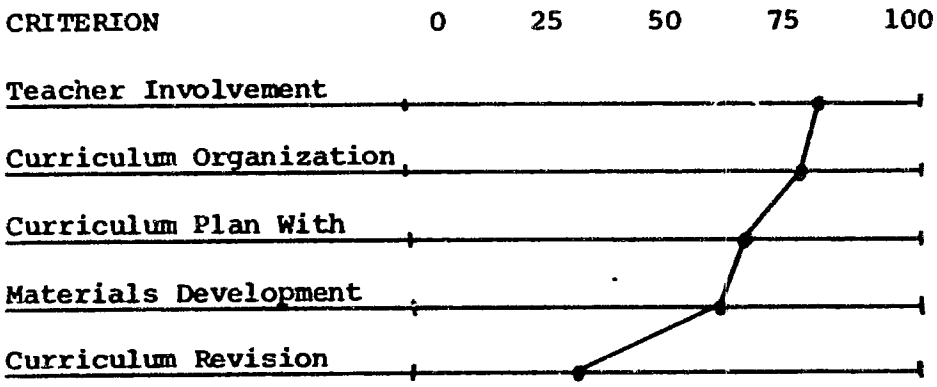
CURRICULUM DEVELOPMENT - QUANTITATIVE ASSESSMENT

Criteria	Teacher Involvement					Curriculum Organization			Curriculum Plan With				Mater. Develop.		Curric. Revision	
Sub Criteria	Training in curriculum writing	Training in pre-written curriculum	Teacher written objectives	Teacher written lessons	Teacher written courses	Single, discrete subject matter	Integrated core, spiral curriculum	Open, interest centered	Content	Materials needed	Lesson samples	Criterion reference evaluation	Art objects	Content objects	Plan exists	Standing committee exists
W	.90	.90	1.0	.91	.89	.53	1.0	.80	.70	.83	.81	1.0	.90	1.0	.80	1.0
A	75	80	85	80	75	20	90	10	60	60	80	80	70	70	60	10
B	80					78			71				70		32	

W - Subcriterion weight
(maximum weight = 1.0)

A - Subcriterion rating

B - Criterion score



In the initial analysis of needs (El Diagnostico del Sistema Educativo) the insights and experiences of some teachers were utilized. Some teachers were also members of the curriculum development team, with each member of the team having a committee of teachers and specialists to assist in the writing. For those participating in the writing, the cohesiveness and enthusiasm of the groups involved was remarkable. The planners, advisors and directors are to be congratulated for the soundness of this procedure and its success.

If, however, the new curriculum is to have extensive implementation, even more teachers will have to be involved in the diffusion process. Interviews with other teachers currently involved in its implementation elicited remarks that they were not consulted. But these teachers also felt no need for an input on their part, since the curriculum was being totally constructed for them by "experts"! Lack of wide teacher involvement in curriculum construction is especially unfortunate, since the enthusiams of the teachers and directors for the new curriculum could only be prolonged and deepened by seeing their ideas included. At this stage, it is recommended that there be more teacher input. Teachers who will implement the curriculum in

future years should be selected sufficiently in advance so that regional meetings can be convened to survey their views on its objectives, content, etc. After this meeting, a follow up meeting can be held at which condensed versions of their inputs are presented for revision.

b. Curriculum Organization

Only a brief comment is in order here. The new curriculum is an excellent piece of work. In the light of the starting point, the progress has been remarkable. Ultimately, however, the value of a curriculum is measured by what happens in the classroom. There is concern about this, especially regarding teacher supervision by school directors. At one Regional Center, neither the Center Director nor primary school Directors had copies of the new curriculum. If they are to supervise and evaluate, on what basis can it be done without this fundamental tool? This matter is dealt with more extensively under teacher training.

c. Curriculum Plan and Materials Development

This criterion merits high ratings in terms of the curriculum and its guide. It contains elements needed by teachers to conduct a lesson from objectives to evaluation. However, a notable lack of simple materials such as paper and reproducing

machinery can leave this fine beginning just where it is - a beginning. Without these supplies it seems difficult to imagine full implementation in terms of materials for desk work and evaluation. It is suggested that because of materials shortage, teachers implementing the new curriculum meet regularly to share materials developed or exchange classes where feasible to provide students with opportunities where teachers have special strength and interests.

d. Curriculum Revision

This criterion receives the lowest ranking. Interviews with educational personnel at every level yielded assurances that there is a "plan" for continued curriculum review. This plan involves two scheduled meetings with the teachers who presently are implementing the new curriculum. These meetings will occur in July and December of this year. The purpose of the meetings is to evaluate implementation of the new curriculum. Presumably such evaluation will occasion some revision. There is, however, no existing standing unit charged with curricular matters as such. The MOE's curriculum development team apparently has the status of an <u>ad hoc</u> committee. Nowhere in the administrative

organizational chart of the educational development program is there a unit dealing with curriculum as such. This deficiency has not escaped the notice of either the Executive Director of the Educational Development Program, or his advisers and writers. Interviews with them revealed that there is a concerted effort to establish a curriculum department within the Ministry of Education. They hinge their hope of continued progress in the curriculum area on the establishment of such a department.

e. Teacher Training

(1) The questions around which this evaluation turns, as derived from the Pro-Ag objectives, are the following:

(a) Has in-service training been provided for primary teachers?

(b) Has staff training begun in the Superior Institute of Education and the Regional Education Centers?

(c) Has training abroad been instituted for up to 24 persons in:

i. bilingual education

ii. industrial-technical education

iii. school administration

iv. central administration

v. textbook production

vi. health and physical education

vii. curriculum and instructional methodologies

viii. educational supervision (for vocational education and accounting teachers)

(d) Has the National University sensitized 144 directors and supervisors and 135 teachers to the new curriculum and prepared them to accept it?

(e) Has in-service training begun at the secondary level in technical-vocational education?

(f) Has the Peace Corps provided in-location services of 30 man-years over a three-yearr period to primary teachers in zones of influence of the Regional Education Centers?

(g) Has there been a shift from upper secondary to post-secondary teacher preparation?

(2) Evaluation Findings - General Remarks

The entire field of teacher training in Paraguay presents a curiously varied scene. It has an excellence that can be rare even for the United States. When, for example, over 100 teachers are trained in new curriculum, methods, material development and, in addition, do practice teaching using the new curriculum, there can only be respect for planning and execution on the part of the administration of the Plan de Desarrollo. On the other hand, there is no provision for a weekly or

monthly follow up on that excellent beginning. Furthermore, in one rural area, where a teacher was assigned to do follow-up, no transportation was made available. Were it not for a Peace Corps vehicle, there would have been no follow up.

In addition, if in seeking responses to the above mentioned items, one pursues a singularly literal interpretation of the objectives, most have been met, but not with the quality of planning and foresight most desirable. Quality in planning is not a luxury over and above minimal design, it is a procedure that makes any activity cost beneficial.

(3) Evaluation Report by Item

(a) Has in-service training been provided to primary teachers? Very literally, yes. At the Villarrica Regional Education Center, teachers and some administrators who were to implement the new curriculum, received training over a period of three months. The evaluator visited the "cursillo" and followed up with interviews of the participants both at the site and in rural areas. The training had, according to the interviews, these excellent components:

i. the length of training (3 months)

ii. the training in development of materials using local items

iii. the use of local schools as laboratory settings for experimental teaching in the new curriculum

iv. the team-building and esprit de corps among the participants

v. the use of sensitivity or T group procedures to anticipate problems upon return.

Yet, there is lacking an implemented plan for continuation of the beginnings at Villarrica. At minimum, the teachers in the same or neighboring schools should meet regularly to share materials, ideas, methods. Primary directors and, where applicable, center directors should observe, supervise and support teacher efforts in the new curriculum. Yet at one center the directors did not have a copy of the new curriculum.

In addition, there were teachers at the cursillo who were not first grade teachers and therefore were not going to implement a new curriculum. When the evaluator asked administrators why they were there, two different answers were given:

-- "We wanted others to be acquainted with the curriculum so that there might be other personnel at the school outside the program sympathetic and aware of the new curriculum."

-- "These persons will be teaching the new curriculum in the second and third grade when it expands upward."

If the first statement is true, there are no meetings planned where such support might be lent. If the second statement is true, how can training without subsequent follow up have any effect a year later?

Also, it is important to stress that Center Directors should have participated in the training if they are to have responsibility for supervision, support and horizontal expansion.

Finally, two other weaknesses of the training program arise because:

-- There is no capability to reproduce materials at the schools or centers, for either instruction or testing. Yet training was given in both.

-- There are too few visits by supervisory personnel during the year to reinforce the training. When these occur, they are less to counsel, support, etc., than to inspect.

As a summative report on the only major effort thus far to train teachers who will implement the new curriculum, Table II lists the specific criteria used to give this effort a quantitative rating.

In addition to listing the evaluative criteria, Table II relates these criteria to seven components which should be considered as part of the process of training the teachers to develop, implement and evaluate the new curriculum.

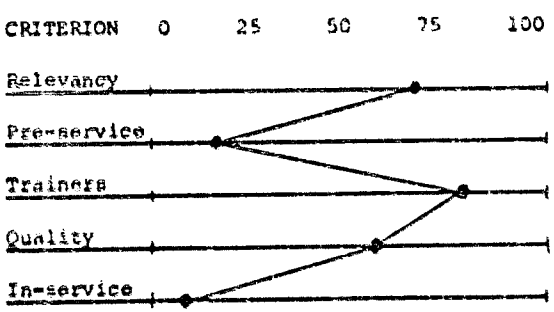
TABLE II

TEACHER TRAINING - QUANTITATIVE ASSESSMENT

Criteria		Relevancy			Pre-service Frequency					Pre-service Length					Trainers				Quality				In-service Frequency					In-service Length				
Sub criteria		Cultural content	Adapted to child's language	Use of local realia	Weekly	Monthly	Biennially	Triennially	Once a year	1/2 day	1 day	3 days	Week	3 months	Ethnicity	Length of teaching experience	Recency of training	Language background	Planning guidance	Personal teacher activity	Development of realia	Recency of theories	Weekly	Monthly	Biennially	Triennially	Once a year	1/2 day	1 day	3 days	Week	3 months
	W	9.0	8.9	8.0	9.8	8.6	8.5	5.5	4.7	7.4	9.6	8.1	7.4	6.5	8.0	7.9	8.0	8.3	8.3	10	8.1	7.1	9.0	8.0	5.0	6.0	1.0	1.0	2.0	3.0	5.0	9.0
	A	69	84	74	10	10	10	10	47	10	10	10	10	65	80	75	75	83	51	50	80		10	10	10	10	0	0	0	0	0	90
	B	72			15					18					79				60				9					4				
Curriculum Development Components																																
1. Course Modification	-A	70	85	70	10	10	10	10	47	10	10	10	10	65					10	10	n.a.		10	10	10	10	10	0	0	0	0	9
	-B																															
2. Lesson Planning	-A	70	85	75	10	10	10	10	47	10	10	10	10	65					80	90	n.a.		10	10	10	10	10	0	0	0	0	9
	-B																															
3. Objectives Writing	-A	70	85	75	10	10	10	10	47	10	10	10	10	65					10	10	n.a.		10	10	10	10	10	0	0	0	0	9
	-B																															
4. Language Usage	-A	60	85	75	10	10	10	10	47	10	10	10	10	65					60	60	n.a.		10	10	10	10	10	0	0	0	0	9
	-B																															
5. Child Psych. and Devel.	-A	70	80	75	10	10	10	10	47	10	10	10	10	65					n.a.	n.a.	n.a.		10	10	10	10	10	0	0	0	0	9
	-B																															
6. Cultural Courses	-A	50	85	75	10	10	10	10	47	10	10	10	10	65					75	60	80		10	10	10	10	10	0	0	0	0	9
	-B																															
7. Evaluation and Test Construction	-A	85	85	75	10	10	10	10	47	10	10	10	10	65					70	80	n.a.		10	10	10	10	10	0	0	0	0	9
	-B																															

n.a.

no opportunity to observe



Socio-Economic Systems
INCORPORATED

(b) Staff Training for Regional Centers

At present 40 teachers are in training to become teacher trainers at the post-secondary level.

(c) Training abroad is under way for 22 persons at the University of New Mexico. Two departed for personal reasons. The training is in the following fields:

i.	bilingual education	- 4
ii.	industrial technical education	- 1
iii.	school administration	- 8
iv.	central administration	- 2
v.	curriculum and instructional methodologies	- 4
vi.	textbook development	- 3
vii.	health and physical education	-
viii.	educational supervision	-

Prior to traveling to Paraguay the evaluation team leader visited the University of New Mexico (UNM) to interview the two training program administrators and six of the participants.

One of the first problems cited as confronting the program in its initial stages was the late date in securing official approval of the training contract and disbursement of funds. This caused a few problems in securing credit for the group, but was not a major crisis.

Finances were also a problem for the participants. They indicated their relatively small stipend allowed them only the bare necessities. Extra products or services such as the university's medical clinic were difficult to purchase with the sums at their disposal. They also suggested that the stipend caused minor hardships because of their financial obligations in Paraguay.

Selection of the participants, the trainees suggested, was done in an informal manner through the advisory committee on the project in Asunción. But specific criteria for their selection were not elaborated. This lack of selection criteria may have occassioned several of the problems cited below and the early return of one trainee to Paraguay. UNM apparently had little to say about these criteria and AID had the opportunity to suggest criteria through the advisory committee.

UNM conducted a two week period of orientation in Paraguay for the participants before their departure. In part, UNM sought to gain some notion of the participants' emotional stability and their ability to withstand cultural shock. The UNM training program appears to be well

conceived in terms of providing its participants with appropriate training, as well as offering a variety of supplementary experiences concerning education in general and in understanding American culture. Attention is also given to the personal comfort, safety and recreation of the participants. University scholars sit on the program's advisory committee and facilitate its improvement via appropriate advice. Tri-mester reports on the group's progress are sent to the MOE, AID and the UNM Chief of Party in Paraguay.

UNM claims many resources are available for training Latin American educators. The Albuquerque area is especially rich in good models of bilingual education and Spanish speaking educators. Supplementing the instruction in professional education are intensive language training in English and an orientation to American culture. For example, the group has heard visiting lecturers from the Albuquerque city government, observed school board and PTA meetings, and has visited historical sites and other cities such as San Diego and Los Angeles, California.

Finally, in addition to testing the participants

to determine the results of classroom instruction, there is an attempt to ascertain the outcomes of the total training program. This is done through at least an informal follow up of how the participants are able to use their new understandings, skills, etc., when they return to their jobs.

Instructional Problems. As suggested above, the design of the training program appears well planned, but various problems have cropped up in its implementation with the Paraguayan group. The major problem cited by both participants and program administrators centered around the nature and sequence of various aspects of the program. Specifically, one point of contention was the need for more general background on professional education for the Paraguayan specialists. Some of the participants felt that their time should be spent solely on subject matter specifically related to their educational function in Paraguay. The program administrators, on the other hand, felt that an orientation to American education and some of its major problem areas would be of benefit to all the participants. (To this general background was added instruction for the specific training needs of each participant.)

The UNM administrators' intent, as interpreted by the evaluator, was to provide the participants with the "broad picture" or socio-cultural context in which educational problems occur. With this "broad picture" it is hoped that the Paraguayans will better understand the principles that guide educational development in all settings. To complement this general orientation there are a variety of experiences or observations of specific instructional programs. These are not necessarily intended as ready-made solutions for Paraguayan schools. Instead, the philosophy is that education is in large measure still an art, and good teachers are eclectic, deriving unique solutions to their problems from a wide exposure to ideas and practices in other settings. Unfortunately, the program's philosophy was not conveyed or accepted by all of the participants. Some were disappointed or frustrated for lack of more specific attention to their specialties during the first semester. "Approximately 30% to 40% of the instruction was useful," said one participant, "the rest was interesting, but not directly applicable to our problems." "I expected much more work in my area of specialization," said another participant. "They should tell the

future trainees that they aren't going to study only their specialties when they come to New Mexico," she added.

Within their specialties, some participants differed on the value of the theoretical portion and the practical or field observations and on-the-job training. One individual felt the theoretical part of his specialty was too general, having been designed for administrators. Another person desired more intensive work on the theory of linguistics, which would be useful background for structuring bilingual programs in Paraguay. Still another participant suggested his previous training had exposed him to a well grounded theory in his field. He felt he had no need for additional theory, and that the specific technologies involved in improving his Paraguayan unit merely involved an extension of the principles learned earlier. He suggested only minimal attention need be given to his familiarization with these new technologies. Finally, one individual felt he had not received any theoretical orientation to his field of specialization.

The participants also differed on the extent and the value of the first semester's observations

and on-the-job training related to their specialties. A few indicated that they had many varied experiences which they would be able to apply to their situation back home, while one individual complained that his field experiences had been too limited.

At the time of the interviews, the participants were split into two groups, one generally dissatisfied with the program and the other group supportive of its design and operation. The former group had suggested early in the program that the first semester's training be divided into two parts - one conducted in the traditional lecture mode and the other observing educational programs in the field. However, the program's administrators were unable to comply with this request. Perhaps this inability was due to the lack of lead time necessary for restructuring the program.

There were other problems cited by the participants of the training program. They felt the need for more materials in Spanish, and suggested that some existing translated materials contained errors in Spanish. Some also found it difficult to work in English, especially writing term papers. Readings in educational research

also presented a problem for lack of background in research critique skills and statistics. But they were also thankful for the assistance with their English by American students at the university.

One suggestion offered for more effective English instruction was to group the participants according to their facility in English or according to their specialties. Others suggested that it was probably difficult to secure highly competent instructors who speak Spanish well enough to communicate complex ideas effectively to the group. Apparently not all the instructors command Spanish well enough to lecture formally in it.

In addition, it was indicated that some class meetings were not held due to absent instructors, and the time was never made up. They also lamented the lack of close contact with their university professors. They usually did not have this close contact with them, because professors were often busy with other responsibilities, and they were not assigned to the training program for the second semester.

Finally, some participants were also upset by the decision to formally test them and record some assessment grades. Initially they were

told they would not be evaluated, then later they were told only the project administrator would evaluate them. Now they understood they were to be tested in each course and assigned grades. There was a bit of anxiety concerning these grades since they expected the MOE to use them as indicators of competency. Perhaps this new development was related to the granting of UNM credit, although the evaluator was told the university would not extend graduate credit for the courses taken -- even though many of these courses are taught only at the graduate level. In this case UNM doesn't recognize the participants as having the prerequisites for entrance into the graduate school, hence the reluctance to grant graduate credit to these specialists.

In general, the training program continues to function as originally planned. The so-called dissatisfied group, although protesting the structure of the program, feel they will profit from at least some portion of their training. Their principal lament is that it could have been structured otherwise. The satisfied group obviously feels its expectations are being realized by the present program.

It would appear that the UNM Latin American projects office has exerted every effort to secure the best resources available for training the participants. The problems that developed in the implementation of the program are probably due to the natural constraints that impinge on any university seeking to service such a unique project. Instructional personnel of outstanding stature who have a commitment to training such groups are unfortunately not available on a large scale to any university. Also, the scheduling of field observations and on-the-job training, which is in part an imposition on the schools and agencies servicing the program, is probably not readily available at the optimum time and in the desired quantity and quality. However, it is obvious that a formal evaluation of the total training program, if one is desired, must await an explicit assessment after the participants return to use their new skills and insights.

(d) National University's Center for Inservice Education is to sensitize 144 directors and supervisors and 135 teachers to the new curriculum and prepare them to accept it. It was not evaluated since the Project Agreement was signed 2/28/73, four weeks prior to the evaluation visit.

(e) Inservice training in technical-vocational education is to begin at the secondary level. This was not evaluatable due to recency of Project Agreement approval.

(f) Peace Corps was to provide in-location service amounting to 30 man years over a three year period, etc. (Pro-Ag was signed 6/25/71.) One administrator said that two volunteers had been in Paraguay for two years and two others had just arrived. Another administrator indicated only nine were needed, two for each of the four operational regional centers and one coordinator at the central office. The 30 man year figure assumed the existence of seven regional centers (with two volunteers each) and one coordinator. Presently five are in the field, three operating at the primary level. An additional person should be in the field, but he has been waiting more than three months to receive a vehicle which the MOE is supposed to supply.

The Peace Corps Director cited two reasons for the low man year output; difficulty in securing volunteers and the slow and difficult process in coming to an agreement with the MOE. This is a regrettable situation since the volunteers

represent an excellent cadre of teacher trainers, a highly mobile group and have a dedication to working in the rural areas with the teachers. For example, one volunteer had one hundred and twenty outlying schools, but was only able to visit forty. This year's plans are to visit twenty two schools for in-depth training of the teachers. There will be three days of training at each school, three times per year, for a total of nine days at each school.[4]

(g) There has been a remarkable shift away from using the upper grades of the secondary school as a time for teacher training. These grades were traditionally used to prepare primary school teachers. This year no classes were offered in this area.

As an aid to making a summative judgement on the extent to which the Pro-Ag goals and objectives for curriculum development and teacher training are being followed, an evaluative criteria form was developed. By relating the Pro-Ag goals and objectives of these programs to five pertinent components, the evaluator was able to rate

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4. Additional information and judgements on the contribution of Peace Corps volunteers is continued in the later section of this report entitled, "Other Donor Inputs."

the progress to date in curriculum construction and modification, training of pertinent staff and providing additional resource personnel for these efforts. Table III below suggests that considerable progress has been made in developing the curriculum for grades 1 - 3, while the least progress has been on the important tasks necessary to training the teachers who work in classrooms outside the regional education centers.

In this case, the evaluator did not assign a relative importance weight to each subcriterion, but merely rated each subcriterion on a scale of one to five.

TABLE III

PRO-AG GOALS AND OBJECTIVES FOLLOWED FOR CURRICULUM AND TEACHER TRAINING - QUANTITATIVE ASSESSMENT

Major Categories	Curriculum Develop. and Modif.													Personnel (Regional) Training for Center											Counter-part trng.		Provision of Peace Corps Pers. & Short Terms			Training of Classroom Teachers									
		Grade Levels 1				Grade Levels 2				Grade Levels 3																													
Subjects Sub Criteria	γ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	θ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	θ	θ	θ	Z	Z	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
	Relevant to rural life	Math	Natural Science	Ag. Educ.	Ind. Arts	Math	Natural Science	Ag. Educ.	Ind. Arts	Math	Natural Science	Ag. Educ.	Ind. Arts	Abroad	Numbers	Use in Reg. Center	Curriculum planning	Vocational Education	Ag. Educ.	Math	Natural Science	Development of Materials	Ind. Arts	Teacher training	For Superior Inst. of Educ.	Curriculum	Teacher training	Numbers	Training	Background	Use of curric. guides	Training in Math	Curriculum planning	Industrial Arts	Agricultural Education	Objectives writing	Evaluation	Lesson planning	Use of relevant mats.	Language (SSL)
Rating	3	5	5	1	0	5	5	1	0	5	5	1	1	5	4	n.a.	5	1	1	2	1	4	1	5	3	5	5	4	4	4	5	2	0	1	1	5	1	1	5	2

RATING DESCRIPTORS

Rating Scale: 1 - 5

Δ GROUP

Change and Implementation

1. Not started
2. Initiated
3. In mid course
4. Near termination
5. Complete

θ GROUP

Staffing

1. No personnel
2. Minimal staff
3. Half staffed
4. 3/4 staffed
5. Full staffed

γ GROUP

Curriculum Relevancy

1. Traditional
2. Use of holidays as cultural events
3. Teaching local art
4. Teaching local social science
5. Culture permeates curriculum

Z GROUP

Background Relevancy

1. General education
2. Workshop in pro ag courses
3. 3 months - 6 months training in pro ag courses
4. Minor in pro ag courses
5. Major in pro ag courses

f. Recommendations

The most comprehensive statement that can be made relating to program needs concerns planning. Many plans for curriculum development and teacher training have been well conceived in terms of their essential components. But beyond the overall strategy, weaknesses in planning are often discernable. An exhaustive systems analysis should therefore be made to facilitate the translation of essentials into details. At this stage of the curriculum's development and implementation it appears that much of this detailed planning remains to be done.

Specific recommendations -- curriculum development and pertinent teacher training in Paraguay.

(1) A curriculum development department should be be established with a scope of work as broadly defined as possible to avoid unnecessary conflicts. For example, teacher training frequently appears as a unit independent of curriculum, yet outside of a few general considerations in course work, such as Educational Foundations, teacher skill development is, or should be, subordinate to curricular goals. Consequently, teacher training should be a unit within the curriculum development department. The following minimal functions should be included:

(a) research, requiring the services of a sociologist, economist, psychologist,

psychometrist and a philosopher.

(b) curriculum planning and development to establish subject matters, scope and sequence within each subject matter, etc. This requires the services of specialists in curriculum theory, learning theory (especially child development), analysts and planners. Within curriculum planning, long and short range goals should be considered with attention to articulating the phases that are intermediate between the former and the latter.

(c) writing -- specialists needed include technical and literary writers, audio-visual materials specialists and artists. These individuals ought also to relate to the teachers' efforts to develop simple instructional aids, for their classrooms.

(d) implementation strategies, requiring the services of researchers and multimedia specialists who can relate the curriculum to the newer teaching methodologies.

(e) bilingual research and training, requiring the services of a psycholinguist and sociolinguist with backgrounds in the linguistic methodologies of Environmentalism and Nativism.

(f) review and evaluation, requiring the establishment of criteria and assessment methodologies to evaluate the outcomes of the curriculum department's products.

(2) Newer methods of classroom organization and instructional techniques should become the subject of training, and one or two models installed to determine their efforts in decreasing the high dropout rates.

(3) The exact need for supplies and equipment to develop teacher made instructional aids should be ascertained and filled to the fullest extent possible. Without such aids the new curriculum appeal may be significantly impoverished.

(4) Some policy body should address itself to the question of the function of Guaraní in the national life. It should ask to what extent the schools are responsible for maintaining and enlarging the communication skills of the people in Guaraní. At present, Guaraní is relegated to merely a supportive role in instruction. Preplanning and a full array of options regarding the use of a second language should precede decision making on the part of this policy body. As an aid to their deliberations, experts in bilingual education should be employed to develop and present policy papers.

(5) A language dominance instrument should be developed to determine the levels of language usage by students. Those students who can benefit from instruction which uses Guaraní as a vehicle, can be identified and grouped accordingly with this instrument.

(6) Teachers should be given lengthy and detailed training in

(a) theories of language acquisition to show what theory works most effectively with what age groups of students

(b) philosophies, theories and practices in bilingual education so they can make intelligent judgements as to which languages are preferred and why.

(7) Administrators as well as teachers should be given classes in various types of bilingual models. A number of these models should be planned, installed and evaluated to determine what model(s) and model components function best.

(8) More teacher involvement should be sought in the development of performance objectives. This can be accomplished by using some of the budget money allocated for in-service training on the curriculum to hold advance meetings. At these meetings teachers can be both trained to writing objectives and come to feel that their insights are useful.

(9) Supervisors visit classrooms rarely, and then only to inspect. Their visits should be increased and their function modified by prior training.

(10) Supervisors should be trained in the objectives of the new curriculum. Also, observation forms or instruments should be developed for them to use in counseling and guiding the teachers' implementation of the curriculum.

(11) Supervisors should be trained in various types of teacher classroom behavior so they can guide teachers in the techniques of encouraging student creativity, questioning and self activity.

(12) Regional Center directors and directors of primary education at these centers should be trained in the new curriculum and its appropriate teaching methodologies. They should also be given responsibility to assemble their teachers weekly to provide in-service training, guidance and support for their teachers' activities.

(13) An excellent source of teacher supervision are the Peace Corps volunteers. The man years currently provided by the Peace Corps are about one-half of those needed. Peace Corps input should be doubled as soon as feasible and training in supervisory techniques given to the volunteers.

Specific recommendations -- In-service training at UNM. The recommendations are offered as feasible remediation for the problems existing at the University of New Mexico training program:

(1) Establish specific criteria for the selection of participants. These should be explicit criteria and include an objective assessment of participants' need for such training. This assessment might take the form of criterion referenced tests or observational ratings which determine the lack of skills or knowledge of principles of operations necessary to the participant's professional functioning.

(2) Use the test results to help structure the training program and to demonstrate to the participants their need to develop particular skills or knowledge.

(3) Utilize input from the participants in planning the training program.

(4) Explain fully the goals and process of the training program, its various components and their rationale, to participants in Paraguay well before their final selection. Feasible alternatives in the program's schedule or process should be solicited from them. If the suggested changes are demonstrated as not being feasible, participants

not in agreement with the adopted goals and process should be invited to decline participation for obvious reasons.

(5) Determine the optimum balance between the instructional time necessary for general orientation to American education, the theory of given specialties, observation of operational education programs and on-the-job training. A workable accomodation of the optimum schedule with the existing resources and constraints should then be developed.

(6) Use post tests at the end of each major training phase to determine if the disparity between the initial and the desired outcomes of knowledge and skills has been reduced. Also, plan for an explicit follow up assessment, after the participants resume their work in Paraguay, to determine the net impact of the training program after a period of time has elapsed.[5]

(7) In the selection process, attention should be given to the assessment of facility with English, especially the academic and professional vocabularies.

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5. These assessment recommendations should have priority consideration, since they will permit modification of the training program for the most critical element in Paraguay's educational reform -- the quality of their personnel resources.

It is unrealistic to expect the participants to glean maximum benefit from their U.S. training without a modicum of facility in English. Intensive courses in English (as a second language) should be sponsored by MOE/AID with established standards to determine the existence of minimal English skills required to profit from training in the U.S.

(8) Training in critiquing educational research should be given to those specialists who will function as teacher trainers. Also, a research publications unit should be established in Paraguay to service the continuous need of those specialists for up-to-date developments in their field.

(9) UNM professors instructing the participants should be screened for competency in Spanish, especially with respect to the vocabulary of their subject fields.

(10) Means of bringing about more professor - participant interaction outside the classroom should be devised.

(11) The possibility of grouping the participants for different instructional experiences should be explored. This flexibility would hopefully capitalize on differences and commonalities in such things as foreign language skills, areas of specialty and personal interests.

(12) Explore training techniques other than those presently used, for more effective, inexpensive and feasible modes. Portions of the participants' training might best be conducted in Paraguay and supplemented with brief prearranged observation of American educational programs and/or on-the-job training. Techniques such as microteaching, use of mobile classrooms with equipment and materials to demonstrate methods, media, etc., at various educational centers via periodic visits may prove to be a more cost-effective mode of participant training.

B. Educational Materials Production

1. Introduction. Without a doubt the need for the textbook project is of high priority in Primary Education in Paraguay. In traveling to the remote areas, few if any co-ordinated textbooks were found in use. Those that were found were written by private authors who have not written their books utilizing a structured scope and sequence, or continuity from grade to grade. Even in the better urban schools, the texts being used do not have a planned scope, sequence, and continuity which is essential in the primary school program. In both areas, urban and rural, there were no "functional" teacher's guides. These are essential to a good educational program. Furthermore, the books being used have little relevance to the child's life and experiences in the rural areas.

From this need, the MOE and AID/P have organized a textbook project which is in the conclusion of the first phase of production and at the beginning of the second phase. The quantity of texts to be produced and published is listed in Pro-Ag 095.1 June 25, 1970 and will not be reiterated here. Both grant and loan funding are being used to finance the project.

2. General structure of the program.

a. A review of the administrative structure of the project revealed one administrator trying to carry a four man load. Delegation of authority is almost impossible due to an inadequate organization structure. This tends to limit progress and overworks Dr. Salinas, the director. He is covering the administration of

the project, production, printing, warehousing, distribution, orientation, etc. Also, the basic organization does include a logical structure for the smooth flow of administrative procedures from director to division chief, to personnel.

b. The division of labor within the program is not clearly specified and organized. For example: the quality control of the printing of the text is monitored by the authors who have no technical training in printing. In addition, many of the illustrations needed are drawn by illustrators in the private printing firms. This strategy might save time but is not in the best interest in producing quality co-ordinated texts in a unified textbook center.

c. The physical facilities of the writing program are adequate in terms of space but deplorable with regard to noise and distractions in the writers' section at Iturbe and 25 de Mayo streets. The location is on the ground floor of a building at a busy intersection. One has to listen intently and to use a loud voice to communicate.

d. The authors in the program are a well disciplined, capable group. They are very desirous of developing an excellent product. All have had teaching experience and have had some training in textbook writing. They are knowledgeable in their fields, and are capable of doing an excellent job.

They are now working full time and since February have been coordinating their work with curriculum writers. This will greatly improve the products of both areas. Their salaries have been increased above that of the regular teacher. This too should help. They have now developed an excellent scope and sequence for each text produced. This was not done for the first reading texts produced. They are also writing criterion referenced behavioral objectives. This permits significant evaluation.

e. Library and resource materials are fair. More recent writings should be added from various sources.

f. The MOE printing shop is not able to print the colored texts being produced. They have facilities to do an excellent job in some offset printing, but the technical resources to produce a high quality text are not adequate; either in equipment or personnel. If the printing of the texts is to be done by the MOE, additional equipment and training of personnel would be necessary. For example: the size of the desired first grade texts had to be reduced to fit the size of the printing equipment. This limits the author's objectives with the product.

g. Good research has produced some new methodology in the bilingual program. This was carried out by the authors of the reading texts at the Gaona School. It

is now being incorporated into the reading texts being produced.

h. The overall team is very small in relation to the volume of the project. Even though they are well behind the original schedule, they have done a good job for the length of time they have been operating. The original planning was not realistically done. A new timeline has been made but is still unrealistic in relation to the work force now available.

i. The warehouse facility for storing the printed books is excellent. Facilities are well built and well cared for. However; a warehouse full of books is not the goal of the project. The books should be moved out immediately. Some have been there many months. Also, temperature, humidity and insect control is not operational.

j. It should be noted that other institutions are also contributing to the project. UNESCO and OAS have both made contributions of materials and personnel training.

k. There is no orientation program officially designed and approved for the training of teachers who will use the new texts. It was planned in the project but as yet has not been finalized.

l. The distribution of the texts has been announced for the first days in April. There is a list of schools who are to receive the books, but the detailed plan of distribution and reimbursement of funds for the books to

the ministry is not complete.

m. The Educational Materials Center has had excellent stability in personnel. It is now a permanent institution within the Ministry of Education, and all present personnel have been in the program a number of years.

n. Generally there is an excellent supply of printing materials on hand in the MOE warehouse. Paper of high quality, ink, etc., are available. But there is a shortage of production materials which are needed to produce the final manuscripts before they go to print. This is resulting in inferior quality products and should be corrected. Also, there is no well qualified technician working in the production center of the MOE to insure quality textbook production and printing.

o. There are excellent private printing facilities in Asunción. Several rather large companies can print texts rapidly. However, their quality leaves much to be desired.

p. Visits to many rural and urban schools indicate that books are well cared for, and most important, the children are using the books to the fullest extent possible. The use and care of books is impressive. This suggests that the Materials Production Center materials will be well used and cared for.

q. One of the most serious problems is the lack of control

of quality in the text book production and printing phases. Visits to the printing establishments revealed many glaring errors which were not corrected. Smudging, varied printing intensity in the lettering, etc., are common. The authors should not be expected to control quality of printing, as is now the case.

3. Textbooks. The production of textbooks and teacher's guides are not ends in themselves. The function of the textbooks is to reinforce the curriculum in operation and to facilitate teaching.

The first books produced were written in isolation - that is, they were not coordinated with the operating curriculum. The new child-centered curriculum should have been written first and then the texts in coordination with it. This was a serious error in planning, but it has now been rectified and the two teams, writing and curriculum development, are working conjointly. The new manuscripts being produced for the 3rd grade show a high degree of improvement in this regard.

The concept of "teacher's guide" still needs a good deal of refinement. The two guides in reading now published contain excellent pedagogical material, but the day-to-day teaching activities that the teachers so desperately need are not present. For example: The teacher's guide to Lamparita I has 48 pages of pedagogical instructions to the teacher and only 8 pages of lessons and day-to-day materials for the teachers to use. As a teacher's guide it is inadequate. Lamparita II is similar in

structure. If the texts are to reach their full potential, a good teacher's guide must accompany them.

Several long delays have been caused by revision of the texts after they were supposedly in final form. This too shows a lack of coordination. There is no full-time specialist to review and edit the texts as they come from the writers and the illustrators. The books need to be carefully reviewed by a qualified editor before the final form is sent to the printer.

Current textbook publication quantities will serve only about 30% of the school age population. Discontent over their children not having access to these books was expressed by some parents interviewed. It is difficult to see how Paraguay can reach its primary education goal if only 30% of the school children use the new curriculum and textbooks published under MOE supervision. Stopgap programs are costly in the long run. Furthermore, they generally do not coordinate well with national long range educational goals.

Each text and "teacher's guide" now published was examined carefully. Listed here briefly are their strengths and weaknesses. A detailed evaluation format is included at the end of this report's section on educational materials production.

a. Strengths.

(1) The authors of the books have good training in their specific fields for writing children's books. Their capabilities are good.

(2) The use of controlled vocabulary and the graduated, systematic sequence are well presented in the

readers Lamparita I and II.

(3) The content of the new math, science, health and social studies books is excellent. It conforms well to modern methods of textbook organization.

(4) Cultural relationships are very well integrated in all books. The variety of illustrations, songs, poems, activities, etc., are well structured for rural and urban areas.

(5) Type size is well adapted to the visual need of the intended age level.

(6) The pedagogical material in the teacher's guides is excellent.

(7) Overall, the books are good, but with a few minor improvements they could be excellent.

b. Weaknesses.

(1) The final product, in nearly every case, is not of the most desirable quality due to lack of editing and production techniques. There is a lack of perspective in illustrations, lack of layout design - including margin control, central focus, etc. There are frequent smudging and printing errors.

(2) The teacher's guides are inadequate as teacher's guides. They would serve well as a text for teacher training, but they do not have the qualities of day-to-day programming which is necessary. A complete lesson plan in the guide for each page of the child's book would be highly advisable.

(3) The cover on "La Casita Magica" is dull and unattractive. I would suggest a complete revision of technique in developing future book covers.

(4) The reading books are not written with a child centered structure in mind. They contain the same methods and procedures that were used in reading texts for the last 15 years.

4. Recommendations. The following recommendations, if implemented, should improve the program and products considerably. (They are not in order of priority.)

a. A new structure should be established in the administration of the textbook production section of the Ministry. I suggest that the whole program continue to be under one director, but that the necessary divisions be established to carry the product from writer to child and teacher in the most efficient and effective manner. I recommend that the following departments be established and staffed to carry out the necessary activities.

(1) Writing Staff. The writing staff should be divided into four major categories. Other areas of study such as health, civics, etc., could be included within one of these four areas.

(a) Reading and Language arts - chief of group and four writers.

(b) Science - Chief of group and two writers.

(c) Social Studies - Chief of group and two writers.

(d) Mathematics - Chief of group and two writers. Each area should have a minimum of three people to insure varied input and varied viewpoints in the field of specialty in which they work.

(2) Illustrations and Audio-visual Staff. This phase of the program lags far behind the writing phase. I suggest that a mimimum of three to five illustrators be employed and a complete production center be organized and integrated with the writers to coordinate the writing and illustrations of the texts. The production of the final manuscripts should not be confused with printing the books. The final product should be given to the printer in perfect form with specifications in detail as to how it should be printed. The chief of this group should be well trained in textbook production and printing so that he can not only produce a quality book but also control the printing process to insure quality. Format and design should not be left to the printer - the production section should do this.

(3) Editor-in-Chief. The books now published contain many rather glaring errors, for lack of a final editing. This in no way reflects on the authors. A good textbook program has a full-time specialist to edit and

finalize manuscripts. I suggest that at least one full-time editor be selected to work in the writing division of this program.

(4) Orientation and Evaluation. This area of the program, one of the most important, is not organized. Experience in this field indicates that the shortest road to failure in a textbook program is to distribute new texts and guides without a thorough training program for the teachers in the use of the new materials. As of this writing no evidence exists of any training, although it has been suggested that some has been done. As soon as possible a team should be sent to the distribution areas to train supervisors, directors, and teachers in the use of the new texts. The most logical personnel would be the writers themselves. This is another reason why each area needs at least three people to write and train teachers. In addition, the program should have a built-in evaluation system so that constant feedback can be collected to improve future editions.

(5) Distribution.

(a) Distribution is a bottle-neck in the textbook program. It is recommended that a full-time person be named as distribution chief to handle this phase of the program. Some books have been in the warehouse a year or more. In 1973, the

school year will be well underway before books are distributed. This is a big job and includes establishing financial control for the revolving fund to be created from the rental of books. This position should be filled by a dynamic, well-qualified person to insure that the books get into the hands of the children and the rental funds are collected. These funds will insure the production of future editions.

(b) It is also recommended that a continuous training program be organized to keep the project personnel up to date. There are several good textbook projects in neighboring countries. A two week visit can help with the exchange of ideas and techniques. The cost is minimal in relation to the benefits.

(c) For a production program of this magnitude an analytical study is urgently needed to realistically plan time, materials, and financing. The reason the program is now lagging behind schedule is not for lack of writing activity but because of unrealistic planning in utilizing the available human resources.

(d) A coordinating committee should be formed to insure complete cooperation and coordination among various ministry divisions. This should

include a representative from Curriculum, Primary Education, Planning, Teacher Training and the Division of Production of Educational Materials. This committee would serve not only to coordinate and integrate all programs but would also act as a catalyst to keep things moving on schedule in the textbook and curriculum areas.

(e) A cost analysis is needed to show cost-efficiency results. Before more money is put into printing equipment in the MOE shop, there needs to be a cost analysis to determine which road is more economical in time and cost, private industry or MOE printing. However, cost must not be the only criterion, quality of product must also be considered.

(f) Many ministry personnel, field supervisors, and teachers are not acquainted with the new textbook production program. If support for the program is expected, then a program of informing should be initiated to tell all factions the what, when, why of the new program. Parents should be informed too. The usual procedure in the "campo" is for the child to have one book per year. He now will be expected to buy one in each area of study. This can be negatively viewed by parents unless they are shown the value of the new texts

in the education of their children.

(g) It is still evident that some technical assistance in organization and production is vital. There have been some technicians here on short term assignments. It is hoped that the new long term advisor can help out in these much needed arear. He too may need extra help, and it should be given where necessary.

(h) The teachers guide component of the text production program needs some urgent attention. The "guides" are excellent pedagogical teaching aids, but are a long way from the concept of teachers guides in a modern sense. All the teachers manuals not now in print should be reviewed and brought up to date with modern techniques, methods, and materials so that they will better serve the teachers.

(i) The printing of "Facilitemos el Aprendizaje" as a separate text is not essential. All the ideas and materials therein should be incorporated in the teachers guides of the other areas of study. The program should concentrate on the four basic areas of math, social studies, science and the language arts. If books are published in there four areas with good teachers guides, other pamphlets can be included in them and the

extra time, effort, and expense of extra books eliminated. However, auxiliary reading materials for children should be written and printed.

(j) An analysis of textbook needs should be conducted as soon as possible. The 30% of pupil population now being considered in the textbook program should be increased. The coordinated new curriculum and textbook production program should be implemented throughout the whole school population.

(k) Writing teams should include both rural and urban teachers on the staff. Most projects with which the evaluator is familiar utilizes half rural and half urban writers. This tends to insure a cultural continuity which is easily overlooked by urban writers.

(l) It is strongly suggested that the teachers guides include a child's book bound with them. This reduces printing cost and facilitates their use by the teachers.

The new machinery for the MOE printing shop should be installed and used. The present building is not adequate to house it. A possible solution is to remodel a section of the huge warehouse and install the MOE printing equipment in it. This would facilitate the production of the materials produced by the Textbook Department.

7. Quantitative Assessment of Textbook Design and Production. Table IV provides a summary of the criterion ratings of the textbook and teacher guides. The criterion ratings are based upon weighted averages of the corresponding sub-criterion ratings. A typical set of sub-criterion ratings for "Lamparita I" (textbook) is shown on the pages following Table IV. The criteria and sub-criteria presented here are excellent indicators of areas of strengths and weaknesses. They can be used by a textbook development staff and future evaluators to systematically upgrade the quality and effectiveness of this project component.

TABLE IV

COMPONENTS EVALUATION SHEET FOR TEXTBOOKS

Criteria / Subcriteria / Component	Authorship					Content																	Format				Cost			Physical Qualities						Sensitive Areas					Teaching Aids								B
	Background preparation	Training	Contemporary & important new subject matter	Knowledgeable with needs of country education	A -- eligibility factor	Appropriate reading level	Subject matter correct and authentic	Is subject matter recent and updated	Multi-level learning	Individual differences	Scope sufficient for complete understanding	Organization	Sequence	Indexes, tables of contents, glossaries	Teacher's guide provided	Continuity in series of grade levels	Vocabulary development	Functional suggested activities	A -- eligibility factor	Illustrations & pictures adequately balanced	Printed page functional	Overall arrangement	A -- eligibility factor	Does price compare with other books of	same quality	Cost per unit	A -- eligibility factor	Sturdy and attractive binding	Durable printing	Paper and ink quality	No line margins allow for easy reading	Quality and durability of book	Type size geared to child's visual maturity	A -- eligibility factor	Are all ethnic groups considered	Are research findings used in developing	learning	Do content and illustrations remain free from	Lies and prejudice	Is a democratic way of life a part of the	philosophy	A -- eligibility factor	Teachers manual	Are objectives, lessons, sections, units,	well defined	Are other media available and listed	Are other references listed	Evaluation materials	Summaries available	Cumulative evaluation	A -- eligibility factor	B -- OVERALL RATING
Lamparita I Text	5	4	4	4	85	3	3	2	3	4	4	4	1	4	5	5	2	3	63	3	3	3	63	3	2	50	3	1	3	3	4	3	53	4	4	5	4	85	3	4	3	3	*	3	64	65
Lamparita I Guide	4	4	3	4	75	3	4	3	3	3	4	1	4	3	*	*	5	1	62	*	3	3	60	3	3	60	3	2	4	3	3	*	60	3	4	4	4	75	1	1	2	4	1	*	*	37	62
Math I Text La Casita Magica	4	4	5	4	85	4	4	5	2	2	5	3	5	1	*	*	3	4	67	5	3	4	70	4	3	70	3	2	5	2	4	4	67	*	5	*	4	90	*	4	3	4	3	3	4	70	74
Lamparita II Guide	4	3	3	3	65	4	3	2	4	3	4	1	4	3	1	5	5	2	62	*	4	4	80	3	3	60	3	3	5	4	4	4	76	5	4	4	4	85	2	2	2	5	3	3	3	52	69
Explorar y A Gozar	5	5	5	5	80	4	5	4	3	3	5	5	4	1	*	*	4	3	67	4	1	1	40	3	2	50	3	1	4	1	4	4	57	5	3	3	4	75	*	4	3	2	3	2	*	60	61
Lamparita II Text	4	4	3	4	75	4	3	2	3	3	4	4	4	3	3	5	4	2	67	1	3	3	47	3	3	60	3	1	5	3	3	4	63	5	4	4	4	85	1	3	3	*	2	2	1	40	63
CRITERION WEIGHT, W	90					100														80				90				90							70						70								

A = Efficiency Factor = $\frac{\text{subcriteria ratings}}{\text{maximum ratings}} \times 100$

B = Overall Rating = $\frac{W \times A}{W}$

* = not available

Socio-Economic Systems

C. MOE Departments

1. Introduction. This section of the report covers the administration and management of the MOE Departments of Planning and Statistics, Administration and Finance, Personnel, Regional Education Centers and Counseling and Guidance. An extensive effort was made to obtain information from as many sources as possible in order to realistically evaluate selected MOE departments and their various components. Since the educational system does not operate in a vacuum, it is necessary to relate it to the social, economic and political realities of the existing social structure. Informal and social contact with many educators (teachers and administrators), and private citizens added to the information and knowledge gained through personal observation and formal interviews. Formal interviews were held principally with personnel from the Ministry of Education and Worship, including the Minister of Education and various department directors and subordinate personnel. The AID education chief and the University of New Mexico technical contingent in Paraguay were also consulted.

The National Education Association in its Profiles of Excellence cites more than eighty factors for consideration in evaluating school systems. The most pertinent were selected for use in this evaluation along with other criteria developed by Socio-Economic Systems, Inc. A quantitative assessment was then made for each department to determine the degree to which its various components meet the selected criteria. The evaluation

criteria deal primarily with program design, implementability, personnel, communication, and effectiveness. Subcriteria under each category are listed in appropriate sections.

2. General Observations.

a. Communication.

The fragmentation of segments of the Ministry of Education to areas scattered throughout the city creates an administrative difficulty in communication and also causes hardship for teachers and the public in their efforts to obtain needed services.

The concept of decentralization through the use of regional centers is an attempt to provide more decision making and quicker delivery of services to locales distant from the MOE. However, there are many areas in which centralization would alleviate problems of communication both internally and externally within various departments. Personnel and payroll procedures are two of these areas that should be centralized and computerized to the greatest extent possible within the limited technical skills available.

The confusion and delay that is caused by having departments and functions scattered throughout the city can be alleviated by bringing all major components and departments of Ministry into one central location. This may even prove to be a rental and maintenance saving.

b. Personnel.

Top management positions are filled by capable and informed people. There is, however, a dearth of capable support personnel. Secretarial and clerical help is operating at a very low level. There appears to be an abundance of functionaries. Top level personnel, the decision makers, desperately need the assistance of support personnel. Skilled technicians and the necessary funds to compete for and keep experienced, trained and competent clerical and other support staff is lacking. One finds that while there is general support and willingness for change, there is a lack of confidence on the part of departments to move to implement recommended changes or new programs for fear of failure. They understand too well the lack of resources needed to carry out their plans effectively.

c. Goals and Objectives.

The Diagnostico Del Sistema Educativo forms the basis for each department's goals. However, additional departmental breakdown for each individual in relation to the department's stated goals and objectives is a must. For example, a stated objective or function of the Department of Planning is to coordinate and evaluate plans and activities with other departments of Ministry of Education. How this is to be accomplished needs to be spelled out. Will it be done on a weekly,

bi-weekly or monthly basis? Who is responsible for calling meetings? Who will record, summarize and distribute information exchanged at meetings? Who will be responsible for action or follow through on suggestions and recommendations? The responsibilities delegated to a subordinate must include a direct and specific list of activities, with authority for action. The evaluation of each department was conducted principally through the application of the evaluative criteria listed on the "Department Evaluation Sheets" which follow. As an aid, the definitions of the key terms and the rating descriptors used in these evaluation sheets precede the evaluation sheets and the commentary on each department.

3. Definitions and Rating Descriptions. A quantitative evaluation of key departments was made with respect to the certain criteria: program design, personnel, communications, implementability, and effectiveness. A set of unique subcriteria were utilized in generating a rating for each criterion. The subcriteria were rated on a five-point scale. The subcriteria and the meaning of their respective rating scales for each criterion are defined in the following pages. The actual ratings assigned to each department are summarized on the Department Evaluation Sheets. The weighting factors were assigned by the evaluator, with concurrence of the Unit Chief. A rating profile is also shown on these sheets.

The quantitative evaluation is then followed by a presentation of the goals, progress, problems of the department, and recommendations for action.

PROGRAM DESIGN

Needs Assessment:

A study or studies made to determine the needs in a particular area of interest. Its purpose is to isolate, enumerate and prioritize.

1. No assessment conducted.
2. Assessment conducted, but method questionable.
3. Assessment conducted, method and procedures adequate.
4. Assessment conducted, methods and procedures reliable.
5. Assessment conducted, methods and procedures reliable and valid.

Program Definition:

The establishment of specific goals and definite objectives to solve particular problems identified through previous assessment.

1. No definition or plan.
2. Some definition, but many areas open to conjecture.
3. Functions defined, adequate but need refinement.
4. Program well thought out, good general outline.
5. Program very definitive, outlined step by step.

Goals and Objectives:

Goals indicate what is expected. They are the long range end toward which an organization directs its efforts. They are usually stated in broad terms. Objectives are measurable accomplishments over a specific time period directed at achieving the goal. Objectives can and are quite often changed to meet

the goals which have been established. Both goals and objectives are planning tools of the organization.

1. Goals and objectives not developed.
2. Goals and objectives developed, but hazy.
3. Goals and objectives clear, but unrealistic.
4. Goals and objectives based on needs assessment, obtainable.
5. Goals and objectives based on needs assessment, resources, includes time schedule.

Logical Sequence:

A logical, sequential, systematic method of carrying out the goals and objectives of an organization.

1. No logical sequence of events.
2. Logical general plan, but needs additional coordination to goals.
3. Good relationship between activities and goals.
4. Very logical plan of activities, most activities follow logical sequence.
5. All activities planned to follow logical sequential order to accomplish goals.

Priority System:

The ranking of assessed needs in light of the availability of financial and program resources.

1. No priority system.
2. Priority system established, but unrealistic.
3. Realistic priorities established on a clear, realistic basis.

4. Priority system established, based on needs assessment, follows a logical sequence.
5. Priority sequence established and based on needs assessment, budget and time schedule.

Budget:

Budgets are statements of anticipated results in financial terms. The numerical statements of which they are composed are broken down into components consistent with the organization's structure. Budgets correlate planning and allow authority to be delegated without loss of control. They must be sufficient to allow goals and objectives to be accomplished.

1. Inadequate.
2. Adequate for minimal effort.
3. Adequate to achieve some goals.
4. Sufficient to achieve all goals.
5. Full budget, reserve included, procedures established for necessary controls.

Organizational Structure:

The grouping of activities necessary to accomplish goals and objectives, the assignment of these activities to appropriate departments. It is a network of decision centers from which coordination of group or individual efforts toward the goals of an organization is directed.

1. No clear organizational plan.
2. Organizational structure established, but not functioning according to plan.

3. Organizational structure established, executives know and follow plan.
4. Organizational structure established, functioning well, understood by all personnel.
5. Clear organizational structure, all personnel know duties and responsibilities, structure fits into overall goal.

Built-in Decision Making Policy:

Decision making must be timely and effective at all organizational levels. The assignment of "responsibility" to carry out a given function should be accompanied by the "authority" to make and enforce critical decisions. The organization should have clearly defined policies for decision making at all levels.

1. No provision.
2. Decision making policy unclear, cumbersome.
3. Decision making policy clear, but does not extend far enough.
4. Provides for decision making at most levels.
5. Provides for authority and responsibility for decision making at all levels.

Quarterly Reports:

Reports summarizing critical management information each calendar quarter. Such reports usually include financial and performance information as well as concise statements of problems encountered and proposed solutions. Report formats vary with their purpose.

1. No reports required.
2. Only oral reports required.
3. Written reports required.
4. Uniform, clear, written reports required.
5. Correct up-to-date reports required along with oral presentation.

Evaluation Component:

The effective administration and operation of a program require continuous feedback of relevant information to cognizant personnel, to facilitate rational decision making. The evaluation component of a program provides this feedback.

1. No evaluation plan.
2. Plan hazy.
3. Plan developed, but needs to be expanded.
4. Good evaluation component, procedure and methodology well suited to program.
5. Plan calls for evaluation of all areas of program at regular intervals by evaluators not connected with program and continuously by the program staff.

PERSONNEL

Selection:

A prescribed method of screening job candidates, which may include personal interview, performance tests, and testing of skill or educational attainment necessary to the position.

1. No procedure for selection established.
2. Procedure established but not adequate to insure good selection.
3. Adequate procedures established, good selection possible.
4. Good procedures established, include skills test, and written interview.
5. Excellent procedures established, include skills test, aptitude test, written and oral interview.

Orientation:

A systematic planned orientation for each employee coordinated with the function of a department, and the general overall goals of the program.

1. No orientation plan.
2. Orientation offered, but inadequate.
3. Adequate orientation, adequately planned.
4. Good orientation, well planned.
5. Excellent orientation, well planned, all areas covered, plan includes follow through and retraining provisions.

Job Descriptions:

A specific listing of the duties, responsibilities, functions and qualifications for a particular position in an organization's complement of personnel.

1. Job desc iptions non-existent.
2. Job descriptions available, but hazy.
3. Adequate descriptions.
4. Good description for each position including authority and responsibility.
5. ood description, with set standards included.

Technical Skills:

Skills allowing a group or individual to perform functions above the level of an untrained person.

1. Completely lacking.
2. Personnel has minimal needed skills.
3. Personnel has average skills.
4. Personnel has good command of needed skills.
5. All personnel fully skilled and qualified for their position.

Salary Schedule:

A systematic, programmed incremental schedule of remuneration based on educational attainment, years of experience and job responsibility.

1. Salary schedule not established.
2. Salary schedule established but not comparable to other organizations.
3. Salary schedule comparable to other similar organizations.
4. Salary schedule provides fringe benefits, sick leave, insurance, dental plan, etc.
5. Salary schedule provides fringe benefits and incentive for growth based on additional skills and education.

Staff Development:

A coordinated approach to orient and train management and other personnel for advancement in their jobs.

1. No plan to assist staff in developing additional skills.
2. Minimal resources available.
3. Opportunities for staff development offered by organization.
4. Opportunities for staff development available through organization and educational institutions.
5. Provision for payment of fees for staff registering for courses.

Evaluation:

A periodic review and assessment of personnel performance as compared to their specific job descriptions.

1. No evaluation procedures established.
2. Informal oral evaluation schedules.
3. Formal written evaluation.
4. Formal evaluation using established criteria comparable to similar positions.
5. Formal written evaluation with established grievance procedures.

COMMUNICATION

A systematic procedure for providing relevant and necessary information regarding the activities of the component.

Internal Communication:

The degree to which information is exchanged between personnel in a given department to promote the efficient and effective operation of the department.

1. Communication completely lacking.
2. Inadequate communication.
3. Adequate communication.
4. Good communication with all personnel.
5. Excellent communication, opportunity for "feedback" from all personnel.

Communication with Other Departments:

The degree to which information is provided and received from other departments involved in the total project to promote the efficient and effective operation of the project.

1. No communication.
2. Limited communication with some departments.
3. Communication exists with most departments.
4. Good communication on a regular basis.
5. Excellent communication with all departments on a regular basis.

Coordination:

The degree to which the component inter-relates and coordinates with other departments or components.

1. No coordination exists.
2. Coordination with some units.
3. Coordination with all units.
4. Coordination with all units as a planned routine of informational meetings.
5. Coordination with all units in a detailed step-by-step timeplan for reaching goals.

IMPLEMENTABILITY

The degree to which the component has the facilities, personnel and capability to carry out its function.

Budget:

The degree to which the component has an adequate budget to carry out its goals.

1. Inadequate to meet goals.
2. Adequate budget for minimal effort.
3. Adequate budget for average effort.
4. Adequate budget for achievement of goals, good control procedures.
5. Ample budget, good control procedures established, reserve included for unexpected expenditures.

Staff:

The degree to which there is adequate staff to carry out the component's function.

1. Inadequate staff to reach goals.
2. Adequate staff, but skills and experience needed.
3. Adequate staff with average skills.
4. Well qualified staff, good skills.
5. Fully qualified and trained staff.

Facilities:

The degree to which there are adequate facilities for the operation of the component.

1. Inadequate.
2. Adequate, but in poor repair.

3. Adequate, in good condition.

4. Good facilities for current operations.

5. Full facilities, room for expansion.

Equipment:

The degree to which there is adequate equipment to carry out the function of the component.

1. Inadequate.

2. Adequate in number, but in poor condition.

3. Adequate, well maintained.

4. Good supply, well maintained.

5. Full supply, modern, well maintained.

Materials:

The degree to which there are adequate materials to carry out the component's funtions properly.

1. Inadequate supply.

2. Adequate, but poor quality.

3. Adequate, good quality.

4. Good supply, good quality.

5. Full supply, best quality.

Support Personnel:

The degree to which skilled personnel are available to assist the staff in carrying out its functions.

1. Unskilled, untrained.

2. Semi-skilled and trained.

3. Skilled and trained.

4. Skilled, trained and experienced.

5. Fully qualified and experienced.

Responsiveness:

The degree to which the component is responsive to the needs of the program.

1. Not responsive to needs of program and community.
2. Accepts need to respond to program and community,
3. Welcomes input of others.
4. Seeks input from others.
5. Is completely responsive to all aspects of program.

EFFECTIVENESS

The degree to which the component reaches its stated goals and objectives.

Planning:

The degree to which the component has a realistic, effective plan.

1. No plan, haphazard operation.
2. Plan developed, but frequent crises.
3. Adequate plan, but frequent unexpected events.
4. Good planning, few problems.
5. Excellent planning, no major problems, everything running on schedule.

Actual Performance:

The degree to which the component has effectively performed in relation to its goals and objectives.

1. Non-performance.
2. Behind in achieving goals and objectives.
3. Adequate progress.
4. On schedule.
5. Ahead of schedule.

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DEPARTMENT EVALUATION SHEET - QUANTITATIVE ASSESSMENT

PROGRAM OR PROJECT: Planning and Statistics

Criteria	Program Design										Personnel							Communi-cation			Implementability							Effec-tiveness	
Sub-criteria	Needs Assessment	Program Definition	Goals and Objectives	Logical Sequence	Priority System	Budget	Organizational Structure	Built-in Decision Making Policy	Quarterly Program and Financial Reports	Evaluation Components	Selection	Orientation	Job Description	Technical Skills	Salary Schedule	Staff Development	Evaluation	Internal	With Other Departments	Coordination with Other Programs and Departments	Budget	Staff	Facilities	Equipment	Materials	Support Personnel	Responsiveness	Planning	Actual Performance
W	.9	.8	.9	.7	1	1	.7	.9	.8	.6	1	.6	.8	1	.9	.4	.5	1	.8	.8	1	.9	.6	.8	.7	.8	.5	.8	1
A*	4	3	3	2	2	2	3	3	2	2	2	2	3	2	2	4	2	4	5	4	2	2	4	2	2	2	4	3	2
B	52										46							86			48							49	

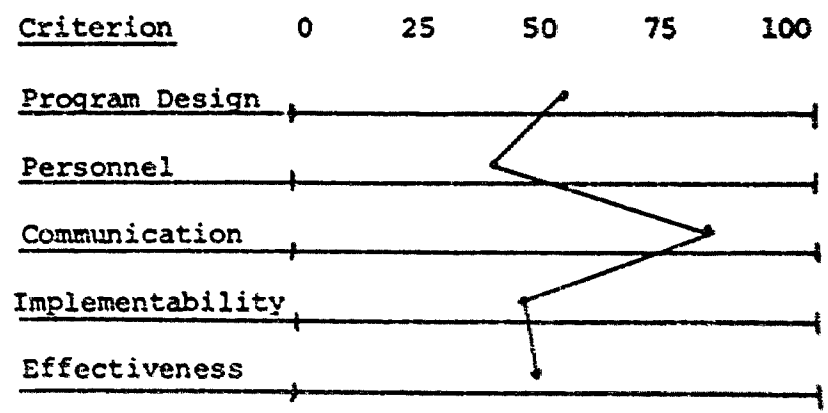
A = average subcriterion rating

B = criterion score

W = subcriterion weighting factor

$B = \frac{\Sigma W A}{\Sigma W}$ = criterion rating on a scale 0 to 100

* These ratings on a 5-point scale were multiplied by 20 to achieve criterion scores on the basis of 100 points.



4. Department of Planning and Statistics. The goals of the Department of Planning and Statistics are to:

a. Coordinate plans, programs and projects with corresponding and appropriate fiscal departments to establish budget procedures.

b. Coordinate and advise all departments in the area of planning.

c. Evaluate the various programs and projects on the basis of budget expenditures.

d. Obtain statistical data and process it to provide timely and accurate information for planning.

(1) Progress

The department has been moving well toward its goal of coordinating planning activities.

(a) It has assumed its responsibility of providing information to each of the units of the Ministry of Education through meetings, conferences and bulletins.

(b) It has brought together the various components needed to provide information for development of plans.

(c) It has established coordination with other data sources for obtaining available information.

(d) It has begun to better coordinate the MOE's plans with other national and international agencies.

(2) Problems

(a) Lack of accurate and reliable data and the means to generate new information is a problem that is compounded by inadequate communication with the field due to difficult travel conditions.

(b) Budget allocations for this department do not allow for the employment of the caliber of personnel needed to perform highly technical functions that a data collection center must perform.

The severity of the problem can be seen by the fact that no one knows the exact number of teachers employed by the Ministry.

(c) Under the new Minister of Education, the planning and statistics unit has been increased in size, and its additional personnel have allowed it to better attend to its functions. Yet, it is recognized that the unit members still require more training in the principles and procedures of educational planning. The MOE's needs' assessment and educational development plan, which are guides to Paraguay's educational reform, indicates this unit's capabilities for logically discerning needs and relating these to program requirements on a large scale. There is evidence, however, to also suggest that problems crop up in implementing

the detailed elements of the adopted plan, due in part to the lack of planning skills. For example, charting the process of implementing these elements, monitoring systems, cost effectiveness studies and provisions for implementation or product evaluations are generally lacking.

(d) The Minister of Education has yet to adopt one of two alternatives for restructuring the MOE. Under one alternative the planning unit appears on the table of organization chart in line with the basic instructional units such as the departments of primary and secondary education. In the alternative organization scheme, it is placed above these basic instructional units, and supposedly is in a better position to coordinate and assist the higher level unit to do long range planning. The decision of the Minister on one of these alternatives has been in abeyance for quite some time, and the planning unit's final status operational pattern has yet to be legally defined.

(3) Recommendations

(a) A team of information and statistics experts should be obtained for a period of at least nine months to develop an information management system that will provide accurate and timely information. The team will have to provide step by step procedures for collecting data and processing it so

that planning can be realistic.

(b) As personnel are trained to perform skilled jobs, it is imperative that adequate compensation be provided for their additional skills in order to discourage transfers to higher paying jobs. Too many of Paraguay's citizens move to other countries to obtain a better position or higher pay. The turnover rate in the Ministry is (without accurate data) known to be very high and the economic, social, and operating costs to the GOP are correspondingly high. It is recommended that a contract be arranged with personnel that provides for a certain number of years of service in exchange for the training that they will receive. Such an arrangement works well in many agencies in the United States and other developed countries for jobs ranging from industrial apprenticeships to management trainees, to internships at State hospitals for doctors and psychiatrists.

(c) Training in systematized planning, monitoring and program evaluation techniques should be provided for all the members of the planning unit who are charged with a leadership role in structuring the MOE's planning process. If these individuals are already undergoing such training, they should be prepared to train other unit leaders such as

the directors of the regional centers and school directors to utilize systematic planning procedures. In this fashion, these unit leaders will also be better able to plan with their staff at the intermediate and lower levels of the educational system.

Simulation of practical situations or application of planning techniques to real situations should be stressed since often these concepts and skills are not internalized and mastered by mere verbalization on the part of the instructor.

(d) The Minister of Education should decide immediately on which alternative scheme for the MOE's reorganization he will adopt and for which he will attempt to secure financial support from the Ministry of Finance. The scheme recommended is the one which best places the planning unit in a staff position which permits centralized coordination of planning and allows for systematic planning and input at the field level. Given the opportunity to participate, school directors, and even teachers, will undoubtedly offer valuable suggestions in any program planning.

5. Administration and Finance. The major goals of the Department of Administration and Finance are:

a. Coordinate with other departments to develop the annual budget.

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DEPARTMENT EVALUATION SHEET - QUANTITATIVE ASSESSMENT

PROGRAM OR PROJECT: Administration and Finance

Criteria	Program Design										Personnel							Communication			Implementability							Effectiveness	
Sub-criteria	Needs Assessment	Program Definition	Goals and Objectives	Logical Sequence	Priority System	Budget	Organizational Structure	Built-in Decision Making Policy	Quarterly Program and Financial Reports	Evaluation Components	Selection	Orientation	Job Description	Technical Skills	Salary Schedule	Staff Development	Evaluation	Internal	With Other Departments	Coordination with Other Programs and Departments	Budget	Staff	Facilities	Equipment	Materials	Support Personnel	Responsiveness	Planning	Actual Performance
W	.9	.8	.9	.7	1	1	.7	.9	.8	.6	1	.6	.8	1	.9	.4	.5	1	.8	.8	1	.9	.6	.8	.7	.8	.5	.8	1
A*	4	2	2	2	2	2	3	2	3	2	2	2	2	2	2	3	2	3	3	3	2	2	1	1	1	2	1	3	2
B	48										35							60			30							49	

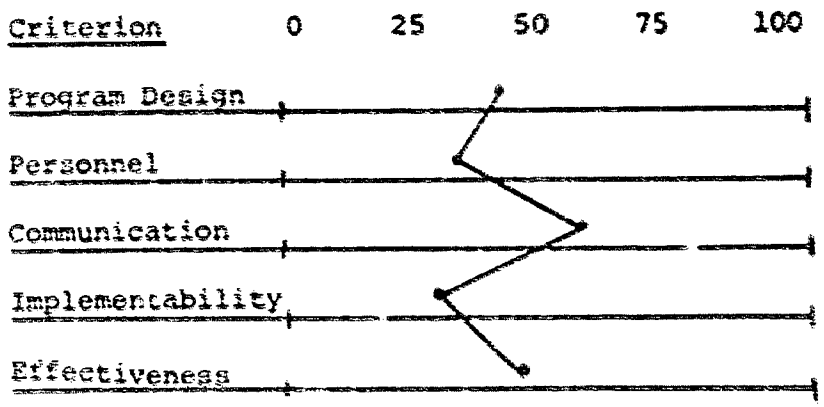
A = average subcriterion rating

B = criterion score

W = subcriterion weighting factor

$B = \frac{\Sigma W A}{\Sigma W}$ = criterion rating on a scale 0 to 100

* These ratings on a 5-point scale were multiplied by 20 to achieve criterion scores on the basis of 100 points.



b. Plan and execute the details of the budget.

c. Control and administer the use of funds.

d. Provide administrative services to facilitate the development of programs and projects under the Ministry of Education.

(1) Progress Towards Goals

The procedure of constructing the budget for the Ministry of Education follows normal practices used by many organizations in creating a budget. The department chiefs of Administrative Services and Finance, Planning, and Personnel form the nucleus of a commission appointed by the Minister of Education. Information and requests from all departments are considered prior to submission of the budget to the Ministry of Finance.

The planning and execution of the budget detail follows the format and is merely the final step in the process prior to submission of the budget to the Ministry of Finance.

The Department of Administrative Services and Finance controls and administers funds through a procedure requiring signatures of the various departments involved including an audit check. The extent of administrative services provided for various units is primarily purchasing of supplies and collecting of fees for exams, diplomas and transcripts.

(2) Problems

(a) Budget development and justification for additional funds are based on deficits existing during the current year. Funds may be provided by and charged to one department for personnel or other costs in another department with insufficient funds. Because of a restrictive program budgeting system that does not provide for intra-budget transfers, the budget becomes an all controlling factor rather than a tool in program management.

(b) Information reaching us regarding pay for teachers ranged from 30% to 60% of the teachers not receiving their pay on the due date. The same percentage are one to three months in arrears in their pay.

(c) Books and supplies, except for the regional centers, are in very short supply in most schools.

(d) The budget, as pointed out by Phillip Gonzales of the University of New Mexico, is so low that if the dropout rate is reduced from the 80% rate by the sixth grade to 40%, it will have to be increased to a point beyond the probable ability of the country to finance.

(e) Budget allocations from the Ministry of Finance are provided in twelve installments

rather than on a yearly basis. This creates additional problems in meeting payroll on time, for the Ministry of Finance sometimes is not able to meet its due date.

(f) The Department of Adminsitration and Finance collects monies from sources outside the budget. These monies are used to augment the budget but are not accounted for nor audited.

3. Recommendations

(a) Immediate implementation of the Manual De Contabilidad, Auditoria y Procedimientos Administrativos to the greatest extent possible is necessary. Personnel from the department have been trained in the use of the manual by a UNESCO team.

(b) A procedure to allow intra-budget transfers must be developed in order to be able to utilize the budget effectively and provide a more accurate picture of the fiscal needs for the following year.

(c) The number of steps required for payroll and other transactions must be reduced by utilizing available equipment where possible. Check writing and signing is done by the paymaster manually; this can very easily be done by machine. The Minister signs forms indicating approval for changes that affect payroll for individual teachers. This can be delegated to a principal or supervisor.

(d) The administration must assume leadership in developing the concept that the main function of supervisors, administrators, and other personnel is to support teachers and their efforts to instruct.

(e) The administrative unit must give priority to paying teachers before any other warrants are issued, and insure that basic lists of books, equipment and supplies are available to every teacher. They must determine the needs of every administrative unit for office equipment and supplies along with special needs of particular units.

(f) There are many functionaries that can be put to better use if electronic copiers are purchased. The evaluator was informed that there are only two in the Ministry. Mechanical copying machines are also needed.

(g) The Department of Administration and Finance must insist on correct and timely information from all departments in order to prepare for future needs. As noted earlier, a cut in the drop-out rate will spell disaster if this department does not prepare for it. This department and the Ministry must start a campaign now to inform the government and the public of the need for added funds for education if it is to accomplish

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DEPARTMENT EVALUATION SHEET - QUANTITATIVE ASSESSMENT

PROGRAM OR PROJECT: Personnel

Criteria	Program Design										Personnel							Communi-cation			Implementability							Effec-tiveness	
Sub-criteria	Needs Assessment	Program Definition	Goals and Objectives	Logical Sequence	Priority System	Budget	Organizational Structure	Built-in Decision Making Policy	Quarterly Program and Financial Reports	Evaluation Components	Selection	Orientation	Job Description	Technical Skills	Salary Schedule	Staff Development	Evaluation	Internal	With Other Departments	Coordination with Other Programs and Departments	Budget	Staff	Facilities	Equipment	Materials	Support Personnel	Responsiveness	Planning	Actual Performance
W	.9	.8	.9	.7	1	1	.7	.9	.8	.6	1	.6	.8	1	.9	.4	.5	1	.8	.8	1	.9	.6	.8	.7	.8	.5	.8	1
A*	4	3	4	3	3	3	3	3	4	3	2	2	3	2	2	3	2	4	3	3	3	2	5	1	2	2	4	4	3
B	66										45							68			51							69	

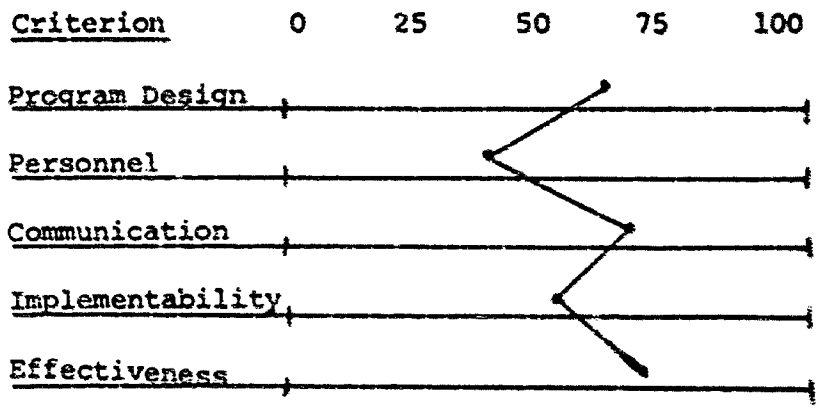
A = average subcriterion rating

B = criterion score

W = subcriterion weighting factor

$B = \frac{\Sigma W A}{\Sigma W}$ = criterion rating on a scale 0 to 100

* These ratings on a 5-point scale were multiplied by 20 to achieve criterion scores on the basis of 100 points.



its goal of raising the educational attainment of its population.

6. Personnel. The director of the Department of Personnel viewed his goals as follows:

a. Create an efficient personnel department.

b. Centralize all personnel functions into one department.

c. Provide inservice training for all teaching personnel of the department.

d. Inform the Minister of Education on personnel needs and changes.

(1) Progress

This department is moving toward achieving its goals. It has acquired large quarters across from the Ministry of Education and has developed a very effective personnel information system that will provide cumulative material and up-to-date information on every teacher. This department chief has acquired good assistants and is willing to delegate much of his authority. He has enough space in his department to be able to maintain all the information packets for all of the teachers of the Ministry. The effectiveness of his department is comparable to many of the better ones in the United States.

The department has compiled an excellent summary of its activities during 1972, titled, "Memorias de las Actividades Año 1972." This review will give background and guidance for 1973. Among those activities

is listed the development of a salary schedule that was presented to the Minister of Education in October, 1972.

(2) Problems

The basic problem that his department faces in trying to achieve its goals is the lack of understanding on the part of teachers as to how to provide information requested. The director also listed a resistance to change as one of the barriers his department must overcome. The requests for information are new and different, and pose a threat to some teachers.

(3) Recommendations

An orientation program for teachers should be held in the regional centers by personnel department staff to assist them in providing the information requested on the new forms. This must be done by the same staff at each center in order to obtain uniformity. It is essential that this be done in order to go to the next step -- data processing. This department has trained personnel in data processing and it is believed that they can move into it with six months of technical assistance from an experienced automated data processing consultant.

7. Regional Centers. The regional centers Chief Administrative Officer cites as her goals to:

a. Direct and develop the regional centers to conform with goals of the Ministry of Education.

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DEPARTMENT EVALUATION SHEET - QUANTITATIVE ASSESSMENT

PROGRAM OR PROJECT: Regional Centers

Criteria	Program Design										Personnel							Communication			Implementability							Effectiveness	
Sub-criteria	Needs Assessment	Program Definition	Goals and Objectives	Logical Sequence	Priority System	Budget	Organizational Structure	Built-in Decision Making Policy	Quarterly Program and Financial Reports	Evaluation Components	Selection	Orientation	Job Description	Technical Skills	Salary Schedule	Staff Development	Evaluation	Internal	With Other Departments	Coordination with Other Programs and Departments	Budget	Staff	Facilities	Equipment	Materials	Support Personnel	Responsiveness	Planning	Actual Performance
W	.9	.8	.9	.7	1	1	.7	.9	.8	.6	1	.6	.8	1	.9	.4	.5	1	.8	.8	1	.9	.6	.8	.7	.8	.5	.8	1
A*	4	4	4	5	5	3	4	3	3	4	3	3	3	4	3	4	3	4	3	3	3	4	4	4	2	2	3	4	4
B	79										65							68			63							80	

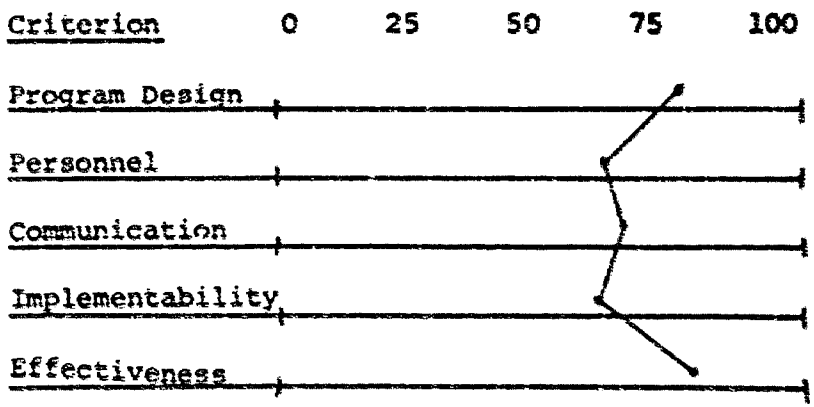
A = average subcriterion rating

B = criterion score

W = subcriterion weighting factor

$B = \frac{\Sigma W A}{\Sigma W}$ = criterion rating on a scale 0 to 100

* These ratings on a 5-point scale were multiplied by 20 to achieve criterion scores on the basis of 100 points.



b. Develop policies and regulations for operating the regional centers.

c. Determine personnel needed to operate the regional centers.

d. Develop an adequate budget to achieve the goals and other responsibilities assigned to her.

(1) Progress

The regional centers are the showcase of education in Paraguay. They are well organized, well staffed, fairly well equipped and maintained. They are effective on-going units and perform their functions extremely well. The administration has selected very competent personnel to administer and to teach in the regional centers whenever it had the opportunity to do so. The budget has not kept pace with demands in the area of maintenance, but the centers still rank as the better maintained buildings of the Ministry. This is done by obtaining volunteer help from the community and student body.

(2) Problems

(a) Acquisition of new equipment and supplies for the labs and shops, as the equipment wears out and supplies are expended, is a problem of which the Director of the Regional Centers is highly aware.

(b) The need to increase the budget for maintenance in anticipation of major repairs requiring skills not

available on a volunteer basis is another area that needs to be considered.

(3) Recommendations

(a) An inventory and assessment of all shop and lab equipment regarding its projected life span is needed, along with an exploration of possible avenues of replacement.

(b) Regular budget, UNESCO, AID, and other outside sources should be considered to help maintain and add to the inventory.

(c) Periodic inspections of buildings by skilled and experienced maintenance men will provide an indicator of possible future needs and justification for an increase in the yearly budget for maintenance.

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DEPARTMENT EVALUATION SHEET - QUANTITATIVE ASSESSMENT

PROGRAM OR PROJECT: Counseling and Guidance

Criteria	Program Design										Personnel							Communication			Implementability							Effectiveness	
Sub-criteria	Needs Assessment	Program Definition	Goals and Objectives	Logical Sequence	Priority System	Budget	Organizational Structure	Built-in Decision Making Policy	Quarterly Program and Financial Reports	Evaluation Components	Selection	Orientation	Job Description	Technical Skills	Salary Schedule	Staff Development	Evaluation	Internal	With Other Departments	Coordination with Other Programs and Departments	Budget	Staff	Facilities	Equipment	Materials	Support Personnel	Responsiveness	Planning	Actual Performance
W	.9	.8	.9	.8	1	.9	.9	.8	.6	.8	1	.9	.7	.9	.8	.9	.8	.9	.8	1	.9	1	.7	.8	.8	.8	.9	1	1
A*	3	4	4	3	5	3	4	3	na	3	3	4	3	3	na	3	2	5	3	2	2	2	4	1	2	2	5	4	4
B	70										60							66			52							80	

A = average subcriterion rating

B = criterion score

W = subcriterion weighting factor

$B = \frac{\Sigma W A}{\Sigma W}$ = criterion rating on a scale 0 to 100

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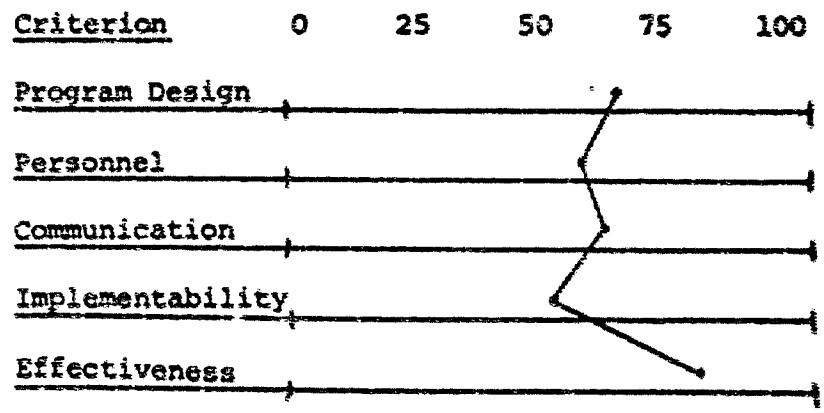

8. Guidance and Counseling. The Department of Guidance and Counseling, officially formed in 1970, is small in size, has personnel with limited training and experience and faces a large demand for its services.

Currently there are approximately seventeen teams from the department operating in the public schools. Each team ideally consists of three persons; one trained in educational counseling, another in social work and a third in public health. In a few instances, such as the Regional Education Center at Concepción, the guidance unit has available to it the part time services of a physician.

The teams work at the elementary and secondary school levels, theoretically under the supervision of the school zone's supervisor. Generally, only the team leader is employed on a full-time basis with the other members working only half days. Each of the Regional Education Centers has a Guidance and Counseling unit which is supposed to extend its services to the schools in its zone of influence, but except for the center at San Lorenzo these units are only half staffed. For this reason, little use of their academic counseling service is available outside of the center. According to our informants (Mr. Carlos de Jesus Ramirez, et. al) the school counselors are all former teachers and members of two groups who received minimal training in a three month course. The first group was trained in 1969. A third group is now in training at the Superior Institute of Education, and the Organization of American States is providing

some assistance in the form of instructional materials and technical advisors. Each of the six guidance workers interviewed (i.e., counselors, social workers and a health specialist) felt there was a need for a longer training session, since they viewed themselves in need of more technical knowledge to better deal with the complex problems they encounter.

In addition to operating guidance units in the regional education centers, the MOE guidance unit is engaged in a three year pilot program in Asunción and its environs. The MOE unit has focused on two school zones containing high concentrations of economically disadvantaged children. Each guidance team in the program establishes its base of operations in a so-called "head school" ("Escuela Cabecera") and extends its services to approximately nine other schools.

The primary objective of the teams in the pilot program is to assist the teachers with the academic and anti-social behavior problems of the students. One of their first concerns has been ascertaining the readiness, aptitude or background which first grade children have for school, especially in language and arithmetic concepts. In this connection they have tested 1150 pupils, utilizing the tests of Lourenco Filko, et al., and discovered that thirty four percent (34%) of the children in the two zones have very poor backgrounds. Most of these children have therefore been grouped together in order to provide them with "special attention" or a differentiated instructional program. Some diagnostic and scholastic

achievement testing has also been conducted to ascertain the effect of differentiated instruction.

On limited occasions, some students suspected of being mentally retarded or emotionally disturbed have been given individual tests. Three schools in Asunción have been designated as special education schools to attend to the needs of these children. For those children unable to attend these "special" schools, guidance personnel visit the child's school.

At the secondary level, a vocational interest inventory is being developed, but the counselors felt it was of limited utility since Paraguay has such a limited range of skilled occupational choices to offer its secondary school graduates. There is hope, though, that with the new curriculum's emphasis on vocational subjects, the interest inventory may be used more extensively to help students decide what area of specialization to select for their advanced secondary school cycle.

In relation to the instructional program, the teams see themselves playing a minor role at this time. Lack of sufficient personnel and materials are cited as the major reasons. With the new curriculum designed to have the student play a more active role in discovery type learning, the counselors see a need for more individualized instructional material, especially in areas related to the concerns of the guidance unit. Unfortunately, little, if any, material of this type is available to the teams. As things currently operate, the guidance unit is pressed for funds to buy a wider range of tests, and lacks the personnel or

time to administer and score them adequately. There are, for example, no mechanical devices for scoring the tests, and so the handscoring consumes a great deal of the team's time.

The Guidance and Counseling Department had little input into formulating the design and content of the new curriculum. Two guidance counselors and one social worker participated in the inservice training on the curriculum at Villarrica. These three individuals will be working in the Caaguazú area where the new curriculum is supposed to be field tested. At Caaguazú, they will atempt to use whatever knowledge has been gleaned from the pilot project in Asunción to help the schools solve academic and social behavior problems.

The guidance team Caaguazú will also be plying whatever knowledge and skills they gained from a study of socio-economic conditions in the schools of the San Lorenzo Regional Education Center area. In applying this knowledge, they hope to be able to train the teachers to administer various tests and to better cope with some of the special problems of their students. In this respect the guidance unit would like to find room in the curriculum where explicit attention could be given to some of their concerns for the students, such as personal, family and community problems.

At this point it appears that the guidance teams have opted to concentrate on solving some of the more immediate and pressing problems which cause students to drop out of school. Poor health is one of these problems, with as many as 87% of the children

suffering from parasites, anemia, malnutrition or dental problems. Although there are referrals to health centers in the school's zone, adequate medical service for these maladies is not always available for lack of funds.

Other major problems arise from the apathy of the community toward school, conflict in the home, broken families, children living with other relatives and parents who do not recognize that their children have a problem. Even when they do become aware of a problem they do not know how to help solve it. Dropouts also occur because children are expected to contribute heavily to the economic subsistence of the household, families who are in transit, and from lack of funds to purchase basic materials such as paper, pencils, scissors, etc. It was also reported that sometimes "significant others" in the community who exercise considerable influence, may create a negative view toward the school among parents.

The principal strategy to overcoming some of the family-community problems causing dropouts is a program of parent education. The guidance teams are making strenuous efforts to work with the parents; to discuss the problems at length and identify workable solutions. Thus far they claim considerable success in securing parental participation, although this is difficult to achieve when children do not live with their parents or live a considerable distance from the meeting sites. The aim of the guidance workers in these discussions has been to get the parents to understand and accept the goals of the school, and to help reinforce some of the school learnings in the home.

The guidance department is also anxious to orient the teachers to these personal, family, and community problems, and to have the teachers assist in solving them. The department is hopeful the teachers will be able to play an active role in home visitations and student-parent counselling.

To date, the guidance people are gratified that teachers and administrators increasingly recognize the need for the services of their unit. But the outlook for increased guidance personnel, supplies, and training with which to upgrade these services is not, at the present time, too promising. Yet the guidance personnel appear to be basically optimistic about their limited and relative success. They are convinced that their endeavor is a crucial one and are therefore dedicated and diligent in their efforts to help as many youngsters as possible.

In reviewing the Guidance and Counselling Department's total operation, the evaluator's judgment is that in the short period of their existence as a unit, there has been considerable progress. There is a plan which focuses on the most pressing needs. In spite of their limited training, the personnel appear knowledgeable about the many facets of the problems they encounter. There have been studies initiated to give them more information on the problems they are concerned with. The organization of the personnel into teams demonstrated a comprehensive and integrated means of utilizing different specialties to solve student problems. Finally, the decision to emphasize parent education, to introduce guidance themes in the curriculum, and to train teachers to assume some of the guidance functions appears to

offer a feasible means of extending guidance concepts and themes into classrooms and homes that can profit considerably.

Recommendations. The proposed "social promotion" plan should include careful consideration of the problems created by advancing the child with "special learning problems." If the guidance department is currently providing these children with smaller classes, specially trained teachers, and special materials, will the social promotion policy lessen their opportunities for learning when they are in a group operating at a higher achievement level? If so, perhaps a better alternate promotion policy could be devised for the "special" child.

Attention should be given to determining the effect on Guaraní speaking children of taking aptitude tests in Spanish. Perhaps these children may be unable to demonstrate their knowledge of important concepts in Spanish, while they are able to do so better in Guaraní. If this is the case, certain tests should be translated into Guaraní.

The necessary materials (e.g., tests), equipment (e.g., test scoring machines), and additional support personnel should be provided to enable the guidance workers to concentrate more of their time on the student-teacher-parent complex, rather than on mechanical tasks such as hand scoring tests.

Given the limited resources of MOE and the state of educational development in Paraguay, it is recommended that the guidance and counselling functions be assumed by the classroom teachers with appropriate training and supervision provided by the current guidance and counselling personnel.

D. UNM Long-Term Advisors and Other Donors

1. UNM Technical Assistance on Curriculum Development and Administration. The principal tasks of one of the two long-term advisors was to assist the MOE in the development of its organizational structure and its decentralization. The other advisor was concerned with advising and assisting in the development of a new elementary-secondary curriculum and the inservice training required to implement it. From the evidence available, it appears that both have provided exemplary service.

The development of the documents was preceded by a formal needs assessment. For example, the inquiry into the Ministry Officials' knowledge concerning their legal and administrative responsibilities and functions highlighted the disparity between what they are legally charged with doing and their conception and actual functions on the job. In the case of the curriculum, several developmental models were presented and explained. Once the choice was made by the Paraguayan "equip tecnico" (curriculum development team), the curricular objectives were derived from a field inquiry by the team.

Both advisors' products are excellent or superlative. An examination of the curriculum (covered in detail in the section on curriculum development) reveals utilization of the latest techniques of curriculum construction.

Especially noteworthy is the inclusion of criterion reference tests to ascertain whether the children have mastered the essentials of the lesson. The two-part proposal for restructuring the MOE is also a most significant contribution by the administrative advisor. It is comprehensive, detailed, and extremely well organized. The specification of priority procedures and steps toward decentralization are feasible, and the recommended time table is realistic. It further provides two alternative schemes for the MOE's reorganization. In his efforts with the reorganization plans, the technical advisor is to be especially commended for working within the political constraints which govern the MOE's operations, yet adhering to the technical principles which govern sound administrative structure and process.

The most significant feature of the advisors' involvement was their modus operandi. They sought to have the job done, rather than to do it themselves. That is, they sought to have the Paraguayan's understand and use a model or system of development. Having applied the system, it is likely that the Paraguayan educators have developed sufficient skill to allow them to use it again. Had the curriculum been developed for them, the process of development might have escaped them.

In contrast to the working style of the UNM advisors, the mode in Latin America appears to be one of instructing

the advisees and demonstrating how products are developed by literally developing them. At first, the Paraguayans seemed disappointed in the two advisors; but at this stage, the persons who are actually doing the developmental work under the advisors' guidance fully appreciate the intent and the training benefit derived from this approach.

In addition to functioning as resource persons and guides in their developmental effort, the advisors also stimulated thought and action in other areas. For example, the notion of social promotion was introduced by the advisors, was developed and is being implemented with their advice.

Other items worth mentioning include their involvement of all parties to be affected by their developmental efforts, the excellent organization of appropriate training for their Paraguayan counterparts, and their ability to work well with the educators of Paraguay.

More than one major MOE official commended their ability to ingratiate themselves with their colleagues, use tact, exercise leadership and produce a self-directive group. In sum, the evaluators have the utmost admiration for their products and the means used to produce them. Both would be worth documenting as models of educational development. Without abashment, the evaluators can offer no recommendations to improve their functions, except to recommend insuring their continued involvement in the project.

2. U. S. Peace Corps Volunteers. The AID project plan calls for utilization of fifteen Peace Corps Volunteers, two at each of the projected seven Regional Education Centers and one coordinator in Asunción. At the present time, there are five Volunteers in the four existing Regional Centers. However, before the present school year only two had been actively involved in helping the Centers to improve instruction in their zone of influence. The Volunteers are expected to first help train the teachers, administrative and supervisory personnel in the Center, then assist them to train teachers in the Center's zone.

One reason cited for the slow start in using volunteers was the difficulty in arriving at an agreement between the MOE and the Peace Corps director. Many lengthy and unproductive meetings were held before an agreement was signed. Supposedly, there were personal conflicts between the directors of the Centers and MOE officials which delayed the agreement. Even now, some problems still hamper volunteer involvement. For example, the MOE's delay in providing one volunteer with a vehicle even though the Ministry was aware of its obligations to do so three months in advance.

The first volunteer began to work with the Paraguayan teachers almost two years ago. Only since June, 1972, has he worked in an official capacity in relation to the

AID project. But this previous work was quite significant in that it developed a new mathematics course of study for the seventh, eighth, and ninth grades and assisted in training teachers on its new methodology.

The Mathematics Department at the National University also took an interest in the volunteers' new curriculum. They began to promote its adoption, but soon experienced difficulty training teachers due to their unfamiliarity with its instructional methodology. The discovery-type of learning, with students encountering the problem and establishing their own objectives and means for solving the problem, was a foreign instructional mode for the university personnel. The volunteers literally had to assist them in preparing teacher training sessions on the methodology.

The volunteers' role as trainers of teacher trainers is a very important one. Previously, university professors had little contact with inservice trainers and equally as important they are serving on curriculum review committees, developing instructional materials and acting as evaluators. Without the assistance provided by the volunteers their effectiveness in these roles would be curtailed.

Since June of 1972, one of the volunteers has worked in the primary classrooms at the Concepción Regional Education Center. One of his major contributions has been to establish the proper relationship and a good rapport

between the volunteers and the teachers. At the outset, there seemed to be anxiety on the part of the teacher over his role in the school, especially since the volunteer was to submit reports on the training activities in the Center. Fearful of personal evaluations, the Paraguayan teachers voiced their dissatisfaction over any possible deprecating reports. Since then, the volunteers have dispelled any notion that they sought to determine what the teachers knew and what they did not know. Instead, the approach is a cooperative one asking, "What do we do now?" and "What didn't we do?"

This year, the volunteers have planned to work closely with the Center director and teachers at Concepción to carry the training program on the new curriculum into all the schools in the Center's zone. The volunteers will also visit the schools, observe, give demonstration lessons, and provide follow-up supervision. Inservice training will also be held on Saturdays with directors of "head schools" in the zone. Preparation of instructional material will also be an important component of the training program. There were expectations of progress this year, but this optimism was tempered by the fact that problems such as the following continue to handicap implementation of the new curriculum:

a. Conflict between MOE and Regional Center personnel

b. Isolation of many schools due to distance making

it difficult for volunteers, supervisors, and directors to visit them for inservice training.

c. Volunteers being urged by the MOE to work with a larger number of schools, thus diffusing their efforts too thinly.

d. Poor professional background of many classroom teachers. Most are accustomed to teaching in a rote fashion, hence are inflexible in their use of new methodologies and have difficulty adjusting to the new curriculum.

e. Teacher fear and reluctance to innovate without MOE leadership or approval.

f. Directors and supervisors who "inspect" rather than assist in orienting and training the teachers.

g. Directors who feel they should not have to expend any additional effort to train teachers since they are not paid more than the teachers.

h. No provision for an ongoing evaluation and revision of the curriculum implementation process.

i. No audio-visual equipment and little supplementary teaching materials.

j. Now that Guaraní is encouraged as a means of instruction, there is no methodology for its use in relation to Spanish.

In considering its limited involvement to date in the Paraguayan educational reform, the Peace Corps has achieved

notable accomplishments: a new course of study for the first cycle of the secondary school, training teacher trainers from the National University, establishing rapport and a cooperative working relationship with the Regional Education Centers and devising a realistic plan for the introduction and implementation of the new curriculum in the regional centers and the schools in their zone. In considering the volunteers' goals and the problems they encounter in achieving them, the following recommendations are offered as aids to facilitate the achievement of their goals:

a. Provide the volunteers and other individuals such as the National University professors who sit on curriculum review committees, with training in the techniques of process and product evaluation,

b. Place as many volunteers as soon as possible into their previously designated slots and move to assure a fixed date of delivery of supportive services and items due them. This should help accelerate the much needed inservice training of teachers.

c. Provide volunteers, administrative and supervisory personnel with short-term training in supervisory techniques.

d. Provide volunteers, et al., with short-term training in the development of simple teacher-

made instructional material. Supplement this training with the necessary supply of materials and audio-visual equipment to develop and use this instructional material.

e. Provide financial and other incentives for teachers, administrators, and supervisors to upgrade their professional skills and to take on the responsibilities necessary to achieve their assigned objectives in the nation's educational reform.

3. UNESCO, UNICEF, and OAS. The educational inputs of UNESCO related to the AID project are concerned principally with teacher training and providing a limited supply of instructional material for the teacher training program. Their emphasis has been training secondary school teachers and teacher trainers who will work in the Regional Educational Centers. Training in evaluation has also been provided for nine persons from the MOE's Planning Department.

UNESCO has also emphasized the improvement of science instruction by providing fellowships for study and supporting the Institute of Basic Science at the National University. Working in cooperation with the Superior Institute of Education, the Institute is training personnel at all levels to improve instruction in science. This is done through the development, field testing, and evaluation of new science materials and courses of study based upon the new developments in science education concepts and methods.

In conjunction with their training program, UNESCO has provided small quantities of textbooks, research materials, reference works, and resource units related to science education and teacher training. Yet, there still remains a dearth of resource materials for the training program such as professional books and audio-visual aids.

Currently, the UNESCO education unit in Paraguay is requesting $43,000 from UNESCO and MOE approval to continue and expand its teacher training program up to 1976. These expenditures are based on its training plan, "Bosquejo de Planamiento de la Formacio Docente, 1972 - 1980." It envisions the training of teachers, administrators, supervisors, evaluators, librarians, and other supportive personnel. It is especially concerned with providing an orientation on pedagogical techniques for professionals, such as lawyers and physicians, who also work as teachers.

The only point of concern for the evaluators of the project was over the UNESCO representative's doubt that Paraguay's teachers are not yet capable of understanding and utilizing the modern schemes of curriculum development and instructional methodology. However, the limited experience that the teachers have had thus far in developing the new primary curriculum suggests that they are well underway toward mastering and applying the modern concepts of curriculum and teaching methodologies.

In considering the UNESCO input, the evaluators feel that this group has selected for itself a complementary role in relation to the AID project. Its emphasis on improving science instruction and training teacher trainers seems to fit in well with the developmental plans of the MOE. Although concern was expressed by UNESCO over the problem of duplication of training programs by international agencies, this may soon be solved. In a discussion with the Director of MOE's planning department, it was revealed that specific meetings with all pertinent agencies were being scheduled to keep them informed of the ministry's plans. These meetings would no doubt avoid any duplication of activities in Paraguay by the agencies. However, the evaluators feel these meetings would not assure the coordination necessary for the most effective utilization of the agencies' resources.

The contribution of UNICEF to the AID project objectives is also small but significant. Their efforts are directed toward adapting rural education in Paraguay to the child's environment and the developmental needs of the nation. As a result of their experience with PROMED ("Programa de Mejoramiento Educativo para el Desarrollo, 1965 - 1975") in the rural areas being colonized, UNICEF is emphasizing such things as small animal raising, natural science, home economics, health and industrial training.

Through discussion, UNICEF claims to have influenced AID in modifying the conditions of the Paraguayan loan to permit the addition of first-aid rooms and shops for industrial arts in the new school construction. The first-aid rooms will also serve as community health posts where no regular health services exist. The workshops will provide prevocational industrial arts experiences for the students and also allow the community's adults and their children to construct useful items such as simple furniture.

UNICEF will be supplying the new schools with simple medical equipment for the teachers to use and educational materials in science, health, mathematics, and home economics. Under a previous MOE plan for textbook production, UNICEF had also provided a large quantity of paper for textbook production. In addition to supplying educational material, UNICEF has been minimally involved with inservice training. They are currently planning to intensify their efforts in training supervisors for the rural schools. Their objective is to change the concept of supervision from one of administrative control to one of technical guidance and inservice training. They also expressed concern for determining the best mode of training shop teachers.

In sum, UNICEF--similar to the UNESCO unit--appears to be concentrating its efforts to complement the resources of other agencies working toward the educational reform.

In addition, it also noted the need for coordinating the inputs of all the education agencies in Paraguay and also the need for the MOE to develop more detailed long-range plans. The current reform plan appears nebulous in terms of indicating specific means and milestones for reaching the reform's goals.

Finally, the Organization of American States (OAS) is also playing a small supportive role in relation to the AID project. It has provided some equipment to the Superior Institute of Education (SIE) which is training educators for important roles in the reform. OAS funds were also used to hire an SIE professor who has, in addition to teaching, begun work on the development of secondary school courses of study.

Training scholarships are also offered by OAS in a variety of fields, and one of them sent a MOE official abroad to study educational planning. In addition, OAS technical advisors in guidance, audio-visual aids, and adult literacy programs have visited Paraguay. The OAS representative suggested all of these activities were indirectly in support of the AID project and the MOE's reform.

In considering the educational efforts of UNESCO, UNICEF, and OAS in Paraguay, the evaluators view them in support of the reform. Though their programs of training, technical advice, and provision of some supplies are of a limited nature they, similar to the Peace Corps, are

concentrating their efforts on important and distinct facets of the total reform. Their respective emphasis on science, pedagogical orientation for teachers training in other professions, adapting education to the personal-community needs or rural areas, and retraining supervisors attends to critical areas of needed improvement.

In spite of their complementary roles and the past training of planners and evaluators, coordination of international agencies' activities by the MOE has been cited as poor, leading to some conflicting activities and plans. The ministry's planning unit schedule for informing these agencies of new developments should eliminate duplication of efforts, but it will not necessarily improve the ministry's ability to plan for maximum use of their respective resources.

For this reason, the major recommendation in relation to these agencies is for a systematic review and modification of the current MOE reform plans. A systems analysis and the detailed planning based upon it should also resolve the problem cited by more than one agency; namely, the vague definition of performance objectives which relate to the ministry's long-range goals. By rigorously defining these objectives, relating resources to required tasks and strategies, developing appropriate PERT charts and monitoring the MOE will explicitly describe the goal attainment indicators which signal success or problems.

IV. CONCLUSION

In conclusion, the evaluators' overall impressions of the Paraguayan educational effort and the AID project is a favorable one. Considering the constraints of the nation's economy, the political problems inherent in education and the state of technical skill among its educators, the public school system is making considerable strides in "tooling up" for educational improvements. In the field, teachers are ready to devote considerable effort to achieve a significant improvement. Given a continuity in the flow of leadership, training and support for their efforts, the outlook for their success is good.

In a global perspective, the current Paraguayan program could, in a sense, be evaluated by comparing it to the educational programs of other nations. If compared on the same criteria to other Latin American nations such as Mexico, Paraguay's program may well be rated as excellent. In comparison to American programs, however, the Paraguayan schools would appear deficient principally because of their relative unsophistication. Yet, it should not be demanded that the Paraguayan schools be measured in relation to same goals which American society has set for its schools. The available personnel, physical resources, and the socio-economic

and political environment affecting the schools of these two nations are considerably different. Therefore, the goals for these two school systems should also differ considerably. In Paraguay, the goals of Paraguayan society should be pursued.

If Paraguay has set as its major goal socio-economic development, international agencies such as AID can best assist the country by helping it to refine its own long-range goals and to identify the performance objectives or indicators which best mark progress toward these goals. This can be greatly facilitated by the design and implementation of an ongoing self-monitoring and evaluation system. This system would insure that the Paraguayans, as well as AID, receive continuous feedback and would thus be able to better control progress toward the nation's goals and objectives. Such an approach is preferable to an annual or biennial outside evaluation by a team of foreign experts.

In retrospect, the question arises as the appropriateness of the educational reform plan in meeting its own stated objectives; namely, "to make possible greater access of school age children to the educational system and to orient their development to the needs of the country." (See page 16, Finberg, "Summary of the MOE's Diagnosis . . .," October 13, 1969, TOAID-312.) From the available projected figures at most 28 per cent of the children who started first grade in 1969 will graduate from sixth grade in 1974. Assuming this

estimate is correct, what happens to the other 72 per cent who dropped out? It would seem that present plans call for an educational system of 12 grades to service a small minority of the population. If this be so, then we would recommend that a comprehensive and relevant education system be designed for the vast majority of children who will normally receive perhaps three or four years of formal education in their lifetime. Such a system might be developed and implemented on a pilot basis (with AID's assistance) in one of the Regional Education Centers.

APPENDIX I

LOGICAL FRAMEWORK

(Project Design Summary)

THE LOGICAL FRAMEWORK

The logical framework shown on the following pages represents a synthesis of the qualitative information made available to the evaluation team by the Mission and AID/Washington. It provides the major content items and their format, without indicating specific numerical quantities such as dollars, numbers of students, teachers, etc. Specific numerical values can readily be inserted in the framework when a comprehensive PIP is developed. It was felt that the considerable amount of survey, forecasting, and analytical work entailed in generating accurate and meaningful data was well beyond the scope of work to be expected from the current evaluation effort. It is estimated that the PIP and a refined logical framework could be designed in a period of three months by two generalists who have good backgrounds in education, mathematics, economics, and survey research methods.

This proposed logical framework is applicable to the entire duration of the Elementary and Secondary Education Grant and Loan Project. It should be utilized as if it had been developed <u>before</u> the start of the project.

LOGICAL FRAMEWORK

(Project Design Summary)

I. SECTOR GOAL

A. Narrative Summary

To assist the GOP in meeting its quantitative and qualitative manpower requirements through formal educational institutions.

B. Objectively Verifiable Indicators

Measures of Goals Achievement. The supply of qualified manpower for the existing and developing occupations shall be increased by _____ per cent from 19 _____ to 19 _____.

C. Means of Verification

1. Ministry of Labor data on manpower need and supply.

2. Formal assessment of technical competence of the trained manpower pool through testing of graduates and sample manpower survey of the occupations of graduates one year after graduation.

D. Important Assumptions

1. GOP will accurately forecast the nation's manpower needs.

2. A literate and trained labor force is essential to economic development.

3. Formal vocational education institutions will be created and supported by the GOP.

II. PROJECT PURPOSE

A. Purpose

To increase the quantity and quality of primary and secondary students with preprofessional basic and polytechnical backgrounds and to reorganize the internal structure and operations of the Ministry of Education.

B. Objectively Verifiable Indicators

Conditions that will indicate purpose has been achieved; end of project status.

1. The number of students graduating with basic and polytechnical education backgrounds will be:

Year	Primary	Secondary
1969	X_1	Y_1
1974	X_2	Y_2
1980	X_3	Y_3

2. The number of schools in which the new curricula have been implemented and are fully operational are:

Year	Primary	Secondary
1969	O	O
1974	A	C
1980	B	D

3. By 1980, the MOE will have been reorganized so that all of its functions, responsibilities, authority, items of accountability, and operational procedures are clearly defined and these definitions and procedures will be implemented; i.e., fully operational.

4. By 1980, there will be a reorganized Ministry of Education which

a. Delegates increased administrative-supervisory responsibilities to the Regional Education Centers.

b. Provides for coordinated planning of all major departments.

c. Establishes budgets with a reasonable distribution between investments and operating costs.

d. Collects and effectively summarizes more accurate educational information and statistics.

e. Better coordinates its use of training grants and other resources to meet pressing needs.

f. Utilizes a graduated teachers salary scale based upon training and experience.

g. Exercises better control over school construction.

h. Exercises better quality control over the production of teaching materials.

C. Means of Verification

1. MOE primary school graduation statistics per educational level and specialty for the years 1969, 1974, and 1980.

2. Observational rating (with evaluative criteria) of MOE's services, procedures, and administrative structure by an objective outside evaluation team in 1980.

D. Important Assumptions

1. GOP will increase its budget allocation for primary and secondary education over the 1969 budget by X per cent a year until 1974 and by Y per cent a year until 1980.

2. A systematic ongoing monitoring and evaluation system will be designed and implemented for this project which will provide continuous feedback to project staff, Mission, MOE, and AID/W regarding status problems and solutions so that effective and timely action can be taken to insure achievement of the project purposes.

3. At least x per cent of educational personnel will acquire the concepts, skills, attitudes, and materials necessary to implement the new curricula under project training activities.

4. MOE will use the AID technical advisor's timetable for the adoption and implementation of its new table of organization and administrative directives.

5. GOP will establish the legal identity of the new MOE units and their respective functions, as specified in the table of organization and administrative directives.

6. AID will hold GOP/MOE to specifications for the elementary-secondary education project as per the legal agreement.

III. OUTPUTS

A. Narrative Summary

1. Increased primary and secondary school enrollment at all levels.

2. In relation to preproject enrollment, a redistributed primary-secondary enrollment pattern, according to grade levels and specialties.

3. Revised primary-secondary school curricula.

4. Teachers and supportive administrative-supervisory personnel trained in new curricula methodology and related services.

5. An adequate supply of instructional materials and supplementary resources related to the new curricula.

6. A more extensive guidance and counselling system.

7. Increase in the number of primary, secondary, and inservice teacher training classrooms.

8. Increase in the number of Regional Education Centers.

9. A new MOE organizational scheme which provides for a decentralized administration-supervision system and improved school management procedures.

B. Objectively Verifiable Indicators/Magnitude of Output Targets

1. For each year after the date of implementation of the project in the schools, ____ per cent of the total primary and secondary school age population will be enrolled (see PIP for specific figures and dates).

2. A predetermined redistribution of the preproject primary-secondary enrollment pattern (in terms of grade levels and subject matter specialties) will be achieved at given points in time (see PIP for the required distribution).

3. The effective use of revised primary and secondary school curricula with their attendant changes in X schools at given points in time, t_1, t_2, t_3, etc. (see PIP).

4. T teachers, S students, and A administrators trained in the new curriculum by X date (see PIP for specific grade levels and administrative-supervisory positions).

5. X textbooks, Y textbook guides, and Z supplementary books necessary for implementing the new curricula will be available at given points in time, t_1, t_2, t_3 (see PIP).

6. S per cent increase in the number of students serviced and a C per cent change in the average caseload of guidance workers will be achieved at given points in time, t_1, t_2, t_3 (see PIP).

7. A primary, B secondary, and S inservice teacher training classrooms will be available at given points in time, t_1, t_2, t_3 (see PIP).

8. R Regional Education Centers will be operational at given points in time, t_1, t_2, t_3 (see PIP).

9. For the MOE:

a. A Function-Responsibility Study and implementation by 1975.

b. A set of operating systems and procedures with manuals including the following published and distributed by X date:

* Planning
* Budgeting
* Programming
* Operating and controlling
* Evaluating and monitoring
* Staff development
* Personnel administration
* Reporting

C. Means of Verification

1. MOE enrollment statistics, per grade level and specialty.

2. Observational rating with evaluative criteria of the new curricula's implementation.

3. Consult records of inservice training sessions.

4. Consult and verify textbook and educational materials production schedule.

5. Consult Guidance and Counselling Department's records.

6. Consult school construction records.

7. Consult school construction records and building specifications for regional centers.

8. Review of MOE reorganization for:

a. Specified delegation of responsibilities to Regional Education Centers.

b. Plans and products of the Department of Planning.

c. Sound budgeting policies and procedures, especially in requiring justification for projects and personnel.

d. Availability, easy retrieval, and utility of educational information and statistics.

e. A comprehensive, long-range inservice training program making optimum use of its total funding sources.

f. Evidence that the new graduated teachers salary schedule establishes a realistic career development program; i.e., degree of moonlighting, teacher attrition rate, enrollment in self-development courses, average duration on job, etc.

g. Critical planning and inspection provisions that assure quality school construction.

h. Critical planning, monitoring, review, and revision procedures that assure on time delivery and quality control in the production of instructional materials.

D. Assumptions

1. Availability of sufficient classrooms, equipment, instructional and support personnel, continued inservice training, trained management personnel, and realistic planning.

2. Sufficient political skill and determination of MOE to institute effective reorganization as recommended by technical advisors.

3. That the revised primary-secondary school curricula are adopted; i.e., that the decision to implement the new curricula is made.

4. That a legitimate demand exists; i.e., that there are more school-age children than there are classrooms to accommodate them.

5. That a PIP exists which includes all major project areas; i.e., curriculum reform, teacher training, materials production, MOE reorganization, classroom construction, etc.

6. That the success of this project should facilitate the development of Paraguay's vocational and technical manpower capabilities, which in turn, are dependent upon the timely procurement of a World Bank Loan.

IV. INPUTS

A. Narrative Summary

1. AID grant funding
   * Technical Assistance
   * Participant training
   * Commodities
   * Other
2. AID loan funding
   * Technical assistance
   * Commodities
3. Peace Corps Volunteers.
4. GOP complementary allocation for MOE.
5. GOP facilitating legislation.
6. MOE counterpart personnel to AID technical advisors.
7. MOE additional personnel for textbook production, curriculum development, inservice training, and MOE reorganization.

8. OAS funds for science materials, equipment, and supplies for printing and inservice training abroad for teachers.

9. UNESCO technical advisors.

10. UNESCO training fellowships.

11. UNICEF teacher and supervisor inservice training program.

12. UNICEF textbook paper, basic sets of didactic materials, vehicles, and hand tools for school workshops.

13. Commodities.

B. Objectively Verifiable Indicators

See PIP for specifics on type and quantity related to implementation target.

C. Means of Verification

Program agreements, payment vouchers, reports.

APPENDIX II

DOCUMENTS EXAMINED

AND

PERSONS INTERVIEWED

DOCUMENTS EXAMINED

"Paraguay - Educational Development Program" (AID-DLC/P-914).

"Summary of the Ministry of Education's Diagnosis of Paraguay's Educational System, TOAID, A-312" (AID).

"Plan de Desarrollo Educacional, 1969 - 1970" (MOE).

"Estadistica Educacional de Paraguay" (MOE).

"Alliance for Progress Loan Paper."

"PL 480 Agreement."

"PROP Summary, TOAID, A-17," 1/18/71 (AID).

"Letter from Dr. Raul Peña, Minister of Education, to Mr. Peter Cody" (6/4/70).

"Anteproyecto de Reconstructuracion Administrativa" (I Parte, August, 1972 and II Parte, December, 1972), E. Bernal (UNM).

"Programas de Estudio," November, 1972, E. Gurulé (UNM).

"Project Agreements," total number completed to date (AID/MOE).

"PIO/T on UNM Short-Term Advisors," 8/25/72, (AID).

"PIO/P on UNM Participant Training Program," December, 1972 (AID).

"Memo on the Textbook Project," 6/15/70, V. Sanchez, Development Associate.

"Report on Curriculum Developments for Secondary and Professional Education in Paraguayan Schools," 8/70, Development Associates.

"Memo on Curriculum Development Work," 4/6/71, Development Associates.

"Report on the Materials Production Center in the Ministry of Education," 8/7/71, Development Associates.

"Report on Personnel Administration, MOE," 8/70, R. Cardenas (UNM).

"Report on Bilingual Education," 9/72, E. R. Mena (UNM).

"Report on Teacher Training," 12/72, R. Ruipérez (UNM).

"Report on Technical-Vocational Education," 9/72, L. E. Saavedra (UNM).

"Report on Financial Status and Procedures in the MOE," 9/72, L. E. Saavedra and P. González (UNM).

"Report on Science, Health, and Work," 9/72, J. Mondragón (UNM).

"Report on Orienación y Consejería," 1/11/73, M. A. Ruipérez (UNM).

PERSONS INTERVIEWED

Briefings

John W. Simms, U. S. Embassy Political Affairs Officer

Robert Adler, U.S. AID Mission, Economic Analyst.

George W. Landau, U. S. Ambassador

John R. Oleson, Director, U. S. AID Mission

Ronald Witherell, U. S. AID Mission Chief Program Officer

Marilyn Zak, U. S. AID Mission Program Officer

Jean Artaud, U. S. AID Mission

Dr. Raul Peña, Minister of Education

Dr. Fabio Rivas, Ministry of Education

Formal Interviews

Ramon Maruja, UNESCO Representative

Prof. Jorje Centurion, Director, Educational Development Program, MOE

Dr. Paulino Aguayo, Director, Department of Personnel, MOE

Tomas Garcete, Director, Department of Administrative Services, MOE

Margarita de Salcedo, Director, Department of Planning and Statistics, MOE

Dr. Martina Cardenau, Director, Superior Institute of Education, MOE

Mabel Palacios, Director, Division of Television Education, MOE

Dr. Arminda Ruiz Pavetti, Director, Department of Regional Education Centers, MOE

Elias Bernal, University of New México Technical Advisory team.

Ernest Gurule, University of Mexico Techical Advisory team.

Dr. Frank Mann, Chief, U. S. AID Education Division.

Dr. Heriberto Jaramillo, Assistant Director, Latin American Projects in Education (UNM)

Ambrosio J. Ortega, Acting Director, Latin American Projects in Education (UNM)

Virginia Osorio, Center Director, Concepción Regional Education Center (REC)

Teresa López Dávalos, Primary School Director, Concepción REC

Laura Princigalli, Primary School Director, Concepción REC

Dr. Abelardo Caballero, Center Director, Villarrica REC

Angela Civil de Montanía, Primary School Director, Villarrica REC

Rita de Cuevas, Curriculum Writing Team, MOE

Lilé Gonzalez, Curriculum Writing Team, MOE

Margarita Balbuena, Curriculum Writing Team, MOE

Ester Ruiz González, Curriculum Writing Team, MOE

Five teachers selected at random from inservice teacher training component at the Villarrica REC

María Sarah González, Concepción REC

Alicia Rita Martinez Delgado, Concepción REC

Modesta Diaz Gutiérrez, Concepción REC

Josefina Fernandez de Torres, Concepción REC

Emelina de Fisher, Concepcion REC

Alan Roman, Peace Corps Volunteer

Tom Schneider, Peace Corps Volunteer, ex-participant in the UNM training program.

Olga Kostenko, Director, San Lorenzo REC

Heriberto Coronel, U. S. AID Mission, Education Division

Principal and staff of the North American School

Dr. Alvarez, Textbook Consultant, Columbia

Emiliano Benitez, Chief, Department of Finance, MOE

Reinaldo Ovelar, Chief of Payroll (MOE)

Arsenio Acuna, Accountant

Sally Ehrlic, UNICEF Representative