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INTERIM EVALUATION OF LAC EDUCATION  
INFORMATION SYSTEM NETWORK  
FINAL REPORT

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AID/M/SER/AAM/OS/LAC

By:

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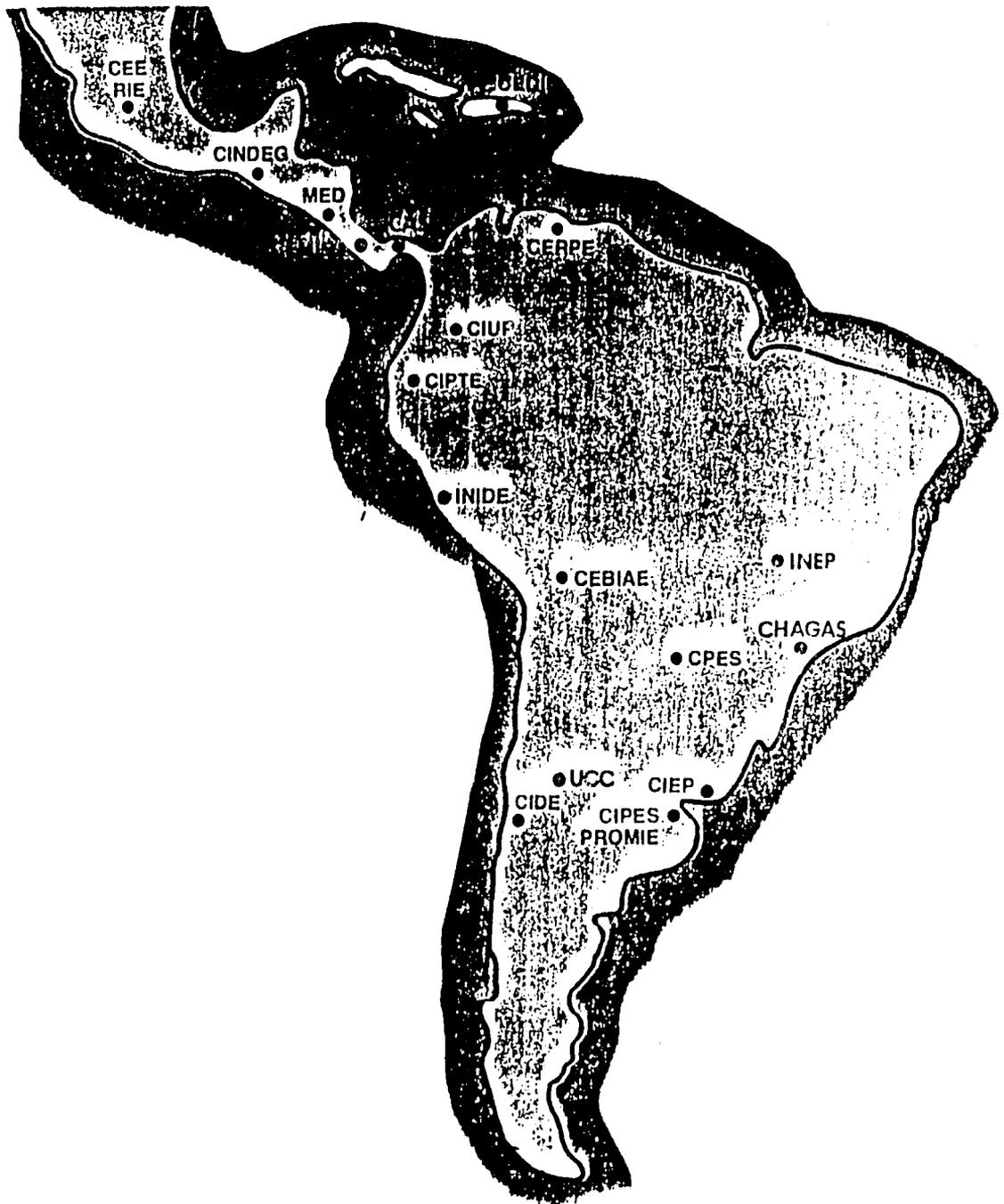
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April 15, 1986

EDUCATION DOCUMENTATION NETWORK FOR LATIN AMERICA  
AND THE CARIBBEAN (REDUC)

RED DE DOCUMENTACION EN EDUCACION PARA AMERICA  
LATINA Y EL CARIBE (REDUC)

GEOGRAPHIC COVERAGE



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## EXECUTIVE SUMMARY

This is the Executive Summary of the Interim Evaluation of the LAC Education Information Network Project (598-0635). The Summary provides: a brief history of project antecedents, project purpose, evaluation design, evaluation methodology, principal findings, recommendations, usage, impact, unplanned effects, lessons learned, and conclusions.

The project, which was funded February 5, 1985, is currently being implemented by the LAC Bureau. Life of project funding is \$983,000 for three years. The purpose of the project is to build a network of educational research and documentation institutions capable of contributing to the solution of problems of educational access and relevance in the LAC region.

This project is a follow-on to an earlier Education Research Network project, initiated in 1980, which established six Regional Centers and a research and dissemination network. The focus of the current project often referred to as CIDE/REDUC (Red de Documentación en Educación para America Latina y el Caribe), is to establish six new Centers (making a total of 12), manage the research system, and increase the utilization of data. It is expected that the diffusion of data to decision makers, academicians and field practitioners will have an impact on the formulation of educational policy, research and practice. The project paper calls for interim evaluations in December, 1985 and in April, 1986. A final evaluation is scheduled for June, 1987, corresponding to the termination of the project. This evaluation responds to the first two requirements.

The interim evaluation was completed on April 15, 1986 by Checchi and Company, under Indefinite Quality Contract PDC-0000-I-00-3082-00, Work Order number 28. The project paper suggested four specific areas for investigation:

- o Implementation - To determine the degree to which the CIDE/REDUC network is meeting its objectives as set forth in the project paper.

- o Field Management - To determine how well the main Center (CIDE) and the national centers are managing the flow of research and information.
- o Utilization - To determine the degree of utilization of research/information by the three target users - decision makers, academicians and field practitioners.
- o Impact - To determine the impact (if any) of this utilization on educational policy, research, and practice by the respective users.

The evaluation included both internal and external components. The internal segment encompassed the overall network, production of documents, training of personnel, research papers, and the data system. The external segment was a field review of the operations of four national centers selected by A.I.D. and REDUC (in Guatemala, Dominican Republic, Costa Rica, and Colombia). At each center the previously mentioned four areas (i.e., Implementation, Field Management, Utilization and Impact) were evaluated.

At the outset of the evaluation, two Checchi investigators, Donald Holsinger and Hunter Fitzgerald, attended the REDUC Regional Conference in Santiago, Chile, January 27-31, 1986. Here, they reviewed the evaluation with headquarters REDUC staff and personnel from the twelve national centers. A review was made of the internal network materials (see Tables 1-6, Appendices A-R, and Attachment ii). Immediately following the conference, the two investigators studied the coordination operations at the Santiago, Chile headquarters. Subsequently, each evaluator studied two national centers. Altogether, they worked with over 90 educators, researchers, and beneficiaries.

A principal finding was that in most instances, the project is ahead of schedule. Five of the six centers programmed for A.I.D./REDUC support from this project have been established and are functioning. The sixth,

in Honduras, is scheduled for opening in the first half of 1986. Research documents, abstracts, bibliographies, state-of-the-art papers, other publications, the training of personnel, and data systems exceed planned numerical targets anticipated in the project paper.

According to REDUC staff, national center personnel and users, there is a wide variation in the quality of network publications, and they recommended that there was a need to establish better selection methods and criteria to ensure that only top level research and investigation enters the network. CIDE/REDUC and the national centers addressed these problems in their regional conference and it appears that appropriate steps are being taken to improve quality.

The evaluators found that the coordination of the project was being handled efficiently and professionally by REDUC. The four centers visited were performing in a highly competent manner, especially when viewed in terms of the relatively scarce resources provided for the project. The investigators reviewed the computerization of the network in-depth. Computerization of the network is on schedule. REDUC headquarters has an appropriate computer system installed and ten national centers are scheduled to be programmed for computer equipment this year.

In the Project Evaluation Summary, seven recommendations were put forward. They were:

1. Ensure that all A.I.D. financed activities including books, journals, periodicals, conferences, visual media, etc. acknowledge A.I.D. co-sponsorship.
2. REDUC Network should develop a plan for the continuous, systematic and comprehensive evaluation of information dissemination, uses and policy impact.
3. REDUC should move quickly to implement the agreement to select a Honduran national center. This, then would complete the network.

4. Develop closer working relationships between USAIDs and national centers.
5. A.I.D. regional bureaus and the Bureau of Science and Technology should examine the possibility of developing REDUC-type networks in other regions.
6. REDUC should add word processing, accounting, and statistical (data analytic) programs to its computer software library.
7. On the occasion of the A.I.D. review of this evaluation, REDUC, A.I.D., and other donors should meet to discuss and plan for future REDUC activities and financing.

Recommendations one through four are critical to meeting project objectives and should be implemented expeditiously. For example, if the first recommendation, i.e., that all A.I.D. financial activities acknowledge A.I.D. co-sponsorship, is not implemented immediately by REDUC, the project's funding should be suspended by A.I.D. until it is effected.

The external evaluation segment which consisted of site visits of one week each to four national centers, found each center's field management to be more than adequate. In general, the network is reporting production, distribution, and content well, but does not have a system in place to adequately report usage and impact of usage. The evaluators found significant levels of usage and impact but the reporting system was inadequate. Recommendation two reflects this concern.

The evaluators found the project materials are already having usage and impact but (as noted above) REDUC has to develop a system to document and verify important information. The investigation found some impacts on decision makers, but it appeared there could be more.

The study uncovered some interesting unplanned effects. For example, the Southeast Asia Ministers of Education Organization's research arm plans to replicate the CIDE/REDUC network project in Southeast Asia. This

is a very positive indication of the project's effectiveness as seen by outsiders. The network has had inquiries from African investigators about the network but nothing formal has occurred to date. Another unplanned effect has been the interest in the system from other non-education disciplines to establish national and regional REDUC-type networks. The evaluation identified at least five instances of such interest and two abstracts journals in other sectors have already been published in the Dominican Republic. The OAS used a similar format to REDUC's system to abstract its more recent education projects. Additionally, the REDUC planners, who envisioned the project, did not really expect that such a large number of Latin American countries could agree to work together and have such positive results. This is definitely not the norm in Latin America. Finally, the willingness of many Latin American governments to share costs was not anticipated. In many countries the government or sponsoring institution's project support is far greater than the A.I.D./-REDUC contribution.

Many lessons have been learned as a result of the project that could benefit other development practitioners. It is possible to change deeply ingrained attitudes in a region and in various countries if you have clear objectives, precisely defined tasks, effective human resources, and sufficient funding. However, it was also learned that basic management practices need to be taught to key project personnel if this type of program is to be successful.

In conclusion, the evaluation found that the project is meeting or exceeding most of its planned purposes and output targets.

## CHAPTER I

### INTRODUCTION

Pursuant to A.I.D. Indefinite Quantity Contract PDC-0000-I-3082-00, (Work Order No. 28) with Checchi and Company of 1730 Rhode Island Avenue, N.W., Washington, D.C. 20036, as contractor, this report is the Interim Evaluation of the Latin American and Caribbean (LAC) Education Information System Network (Project No. 598-0635).

The overall objective of this report is to meet the evaluation requirement as set forth in the Project Paper (pp. 26-27). This requirement contains four specific objectives.

1. Implementation - To determine the degree to which the CIDE/-REDUC network is meeting the purposes set forth in the Project Paper.
2. Field Management - To determine how well the coordinating Center (REDUC/CIDE) and the national centers are managing the flow of education research and related information.
3. Utilization - To determine the degree of utilization of research derived information by the three target users -- education policy makers, academicians and field practitioners.
4. Impact - To determine the impact of this utilization on education policy, research, teaching, and practice by the respective users.

The two principal investigators assigned by Checchi and Company to this effort were: Hunter A. Fitzgerald and Donald B. Holsinger, supplemented during the conference by Noel McGinn, Harvard Representative of the A.I.D./Harvard Basic Research and Implementation for Developing Education Systems Project.

The evaluation consisted of internal and external components, implemented according to the following plan:

## A. Internal Evaluation

REDUC Centers assisted in gathering evidence to determine the degree to which the project is meeting the objectives as follows:

- o Existence of an operable network of national research and documentation centers.
- o Evidence of documentation units producing indices, summaries and bibliographies (see Table 1).
- o Evidence of personnel trained in information management, documentation, and research (see Table 3).
- o Completed research and state-of-art papers (see Appendix L).
- o Improvement of data entry and retrieval system.

The first focus of the evaluation was a conference held in Santiago, Chile January 27-31 at CIDE. Standardized evaluation forms (in Spanish) were sent to all national centers (Appendix A). CIDE summarized and presented the findings to national center representatives at the conference and led a discussion on related problems. Immediately following the conference the evaluators studied the operations of the CIDE headquarters.

## B. External Evaluation

Following the conference, the evaluators visited four of the twelve Regional Centers to gather information relating to field management, utilization, and impact. The four centers selected for study were in Costa Rica, the Dominican Republic, Colombia, and Guatemala. A.I.D., with suggestions from CIDE/REDUC, decided to evaluate four centers in this interim evaluation. The entire network (headquarters and all centers) will be reviewed in the final evaluation programmed for 1987. The criteria for selection were geographic spread and established versus new. One South American country, two Central American centers, and a Caribbean

program covered a wide area. Costa Rica and the Dominican Republic have been in operation for at least four years. Guatemala (CINDEG) was both new to the network and had no prior institutional capability. On the other hand, Colombia was new to the network but the institution for research and dissemination had been in place for some time. The first two were participants in a preceding project.

1. Field Management - At CIDE headquarters and at each of the centers, the evaluators gathered information through interview, observation and document review about the management of research and information from CIDE to the Regional Centers; and from the Regional Centers to the three groups of intended users, i.e., MOE decision makers, academicians and field practitioners.

Key concerns were timeliness and efficiency of delivery of materials to Regional Centers, and the subsequent flow from centers to user groups. The following factors, which could affect the flow of information from CIDE through REDUC Centers to users were investigated:

- o Are Regional Centers staffed adequately?
- o Is training provided to staff members?
- o Are physical facilities at the Centers adequate?
- o Do Centers have computers and, if so, are they functioning and well utilized?
- o Are adequate financial procedures being used?

2. Utilization

The focus of this aspect of the evaluation was the end user. The evaluators analyzed:

- o The quantity, variety and frequency of materials reaching the users.
- o How the materials appear to be used.
- o The extent to which the materials met the needs of users.

3. Impact of Utilization - The focus of this section was the activities of the user. The guiding questions were: do the utilized materials improve the operations of policy makers, academicians and field practitioners and if so, how? Are there unexpected improvements? Are there negative consequences as a result of utilization or non-utilization?

In addition the spread effect of the project was reviewed.

Major evaluation activities and completion dates were as follows:

Forms sent to 12 REDUC Centers for internal evaluation	December 2, 1985
Team Orientation in A.I.D./W (U.S. members only)	January 24, 1986
Centers completed forms and brought to conference	January 26, 1986
REDUC collected and synthesized forms and conducted evaluation session at Conference	January 29, 1986
Team observed/interviewed members at CIDE	February 3-4, 1986
One investigator visited Costa Rica and Colombia and other investigator visited Dominican Republic and Guatemala (five days at each center).	February 6-20, 1986

Chapter V of this document is a draft Project Evaluation Summary (PES), Parts I and II.

As noted above, the evaluation was divided into internal and external phases. The investigators participated in the regional REDUC conference and followed with intensive investigation of CIDE/REDUC headquarters and four national centers. The evaluators developed a "Data Gathering Schedule for Case Studies" (see Appendix Q) which facilitated data collection, met contract requirements, and assured similar study and reporting formats for all centers.

We feel that the evaluation is intensive, accurate and goes well beyond that which was anticipated in the contract scope of work. Furthermore, the results should prove useful to both AID and CIDE/REDUC in terms of improved management, cost-effectiveness, and future decision making.

CHAPTER II  
OVERVIEW AND BACKGROUND

A. Education in Latin America and the Caribbean: A Brief Review

Despite impressive gains over the past 20 years, education in Latin America remains a persistent and urgent problem. First, we discuss progress and then provide a review of severe educational deficiencies in the region. By the late 1970's, most children attended primary school. The coverage of elementary education in the region had risen from 57% to 78%. Secondary school enrollment reached 35% of the appropriate age group and absolute numbers of university students had increased between 300% (Central America and Caribbean) and 600% (South America).

This progress notwithstanding, eleven million children from six to eleven years of age are still not included in the school systems of the region. Rural children spend fewer than three years in school in most LAC countries and majorities repeat early grades. Within country variation in literacy rates is sharp along the rural/urban dichotomy. Progress seen in urban literacy seems not to have touched rural populations, whose illiteracy and poverty seem destined to make of them a distinct class of underprivileged citizens incapable of contributing to national progress or of enjoying its benefits.

Percentage rises in literacy rates obscure the large absolute numbers of illiterates in a region where fertility rates are among the world's highest. It is, for example, quite possible that the region could achieve a 90% literacy rate and still have 36 million illiterates by the end of this century--only 14 years away.

We conclude that despite tremendous and commendable expansion of educational coverage in most LAC countries, there remain serious coverage problems. These are all the more intractable due to their largely rural and isolated character. The quality of instruction at all levels is similarly problematic. Inadequate, non-existent and poorly maintained schools together with poorly paid and inadequately prepared teachers,

paucity of instructional materials including textbooks, all contribute to low achievement in terms of mastery of curricular objectives. Low school quality is a theme receiving increasing attention of LAC governments and international assistance agencies.

The magnitude of the problems, coupled with ever more scarce resources for their solution, prods administrators and education policy makers to search for cost effective solutions. Studies done in one country may be of substantial utility for another. Quick access to current information helps focus attention and deflects the inevitable tendency to prefer another study to the difficult decision to allocate scarce resources among competing demands.

#### B. History and Overview of CIDE/REDUC

At this point in our discussion, it would be worthwhile to review briefly the chronology of CIDE/REDUC contributions to education research and information networking.

In Buenos Aires, in 1970, the Ford Foundation sponsored a conference to analyze the future of LAC educational research which at that time was very limited. It was recommended that a publication be started which would have as its purpose the dissemination of abstracted information from research studies and from other educational documents. The major objectives were the development of indigenous Latin American research competence and the capability of distributing findings and other pertinent material throughout the region, thus avoiding dependence upon imported research and researchers of limited usefulness to the solution of far reaching LAC problems.

CIDE began seeking resources to develop a simple and modest capability to respond to this need. The first analytical abstracts (RAE's) saw the light of day in 1972. Monthly mimeographed pamphlets with 16 RAE's were distributed in Chile and elsewhere in Latin America to a limited audience. Between 1974 and 1976, the growth of the network was difficult, slowly overcoming numerous obstacles. As time passed a significant number

of researchers came to recognize the value of CIDE's contribution to their work.

Once again, in 1977, the Ford Foundation sponsored a regional meeting in Montevideo, Uruguay, which culminated in CIDE/REDUC being designated as the coordinating center with the responsibility of designing a functional Latin American education research network. The reputation of the fledgling network spread quickly and such institutions as IDRC (Canada), NOVIB (Holland) and the World Lutheran Federation lent financial and moral support.

In late 1978 and 1979, A.I.D. began discussions with CIDE/REDUC to develop a project which would facilitate the dissemination and utilization of education research publications as a basis for solving the problems described earlier in this section. In FY 1980, A.I.D. funded the Education Research Network Project (598-0589), in the amount of US\$841,000. CIDE became grantee, program manager and initiator of a network which included 14 research institutions, seven of which received A.I.D. assistance. The purpose was to "improve the quality and quantity of education research information, especially in the Spanish language, and increase the flow of information between countries for utilization by government decision makers".

In FY 1985, A.I.D. funded a follow-on project, LAC Education Information System Network (598-0635), which has as its purpose to build a network of education research and documentation institutions capable of contributing to the solution of problems of educational access and relevance in the LAC region. The emphasis in this project (subject of the present evaluation) is less on initiating new research than on diagnosing problems; and developing bibliographies and analytical summaries of existing materials. It focuses on the user and impact of the network. This has been strengthened by the addition of national centers in the larger, more developed countries, i.e., Brazil, Mexico and Colombia which have substantial research and documentation capacity and experience.

## CHAPTER III

### FINDINGS THIRD BI-ANNUAL REDUC CONFERENCE

#### A. National Center Data

A principal purpose of the Conference held at CIDE/REDUC headquarters was to collect information about the work accomplished in each national center since the last conference. This reporting function of the conference served to collect the data required under the terms of the A.I.D. agreement, but also permitted each center and the central headquarters to assess the activities of the centers compared to the commitment of resources for that center. As was done for previous conferences, a rather large and comprehensive instrument was prepared and sent to each center one month prior to the conference start. This instrument (see Appendix A) was designed to elicit data on the presence and frequency of specified activities. Summing within categories across all countries yields the total REDUC network production for that category.

Before proceeding to a brief quantitative summary of data presented at the Conference, we present a description of the range of products themselves. While some variation in format, size, type and quality of reproduction exists among the products, there appears to be a substantial homogeneity. Products are clearly and similarly labeled (e.g., Resumenses Analiticos, Indice, etc.) and carry the essential bibliographic information to permit their proper library cataloging.

#### 1. Analytical Abstracts (See Table 1 for Details)

These 400 word abstracts known by their acronym RAE (resumenses analiticos educativos) are the principal written product of the centers comprising the REDUC network. The abstracts are produced in a near uniform format following the original REDUC model. The RAE number, title and country of origin are presented first. Following that comes the author(s) name, publisher with date and place, key words for indexing and retrieval, a brief one paragraph description, sources used (e.g., bibliographic, interviews, survey, etc.), contents, and conclusions. The last

two sections are usually the largest, typically from one half to two thirds of the total. The abstracts are not of uniform quality; given that they are produced by different people in different countries. This is not at all surprising. We asked for and were shown overlapping or duplicate abstracts. These were abstracts of the same original work but prepared by different centers. In one case, the first abstract gave three authors and the second six. One abstract gave the total pages at 168 and the other noted 215. The conclusions were nearly identical. In the other case, the bibliographic data were identically provided in both abstracts but the conclusions were different; not contradictory but divergent. In addition to some inter-abstractor unreliability there is an evident difference in the extent to which the abstracts are truly analytical as their name suggests.

## 2. Indexes (See Table 1 for Details)

REDUC publishes an annual Latin American index of all the abstracts submitted from centers throughout the regional network. This is a brief index which does not attempt to reproduce the detail contained in the abstracts themselves. Only essential bibliographic references are given in the index. However, with this information interested researchers are able to locate pertinent material which can then be examined next in the abstracts or in the original if desirable.

## 3. Newspaper Clippings (See Table 5 for Details)

Newspapers have traditionally carried far more research related material in Latin America than is true of the United States. In many cases original research findings are presented to the popular press and printed in full. Consequently, the comparative importance of such clippings is high and REDUC has encouraged member centers to collect this information together with an accompanying index by topic which assists in the later retrieval process.

#### 4. Bibliographies of Research Reports (See Table 6 for Details)

An attempt has been made to prepare comprehensive bibliographies of educational research material by topic in each member country. Some of these bibliographies are remarkably complete research tools of undoubted utility to any new attempt to advance understanding of a certain question or issue. Obviously, the bibliographies can only be judged against the extent and quality of material available and in many cases this is little and poor. However, the importance attached to such efforts is clearly reflected in the products available, many of which we were able to critically analyze.

#### 5. Microfiche (See Table 1 for Details)

The system of preparing microfiches has had all of the expected advantages of making relatively low cost copies of scarce original research work available. Microfiches are consulted prior to taking the expensive next step of preparing a hard copy.

We anticipate that the introduction of microcomputers will eventually compete with and supplant microfiche as a medium for storage and accessing of research materials. Two existing technological developments, each working with a microcomputer make this possible. The first is a text reader which scans printed material and records it in computer readable code. The second is the compact laser disc and laser disc reader which are capable of storing a 20 volume encyclopedia on just one side and which locate any word in five seconds. These machines exist, they are low cost (less than the computer itself), and will be of great use to the REDUC network which has large storage and retrieval needs and a low budget.

#### 6. National Meetings of Educational Researchers (See Table 3 for Details)

These meetings are somewhat tangential to but still important REDUC "products". They can serve several very valuable purposes: (1) they bring researchers and users together in a way that should clarify the

roles of both; (2) they stimulate the production of original research by creating a demand; (3) they provide a forum for professional criticism to occur thus enhancing quality; (4) they provide a rich source of information for the documenting activity of REDUC; (5) they attract the attention of the news media and thus inform the public regarding educational research and confer prestige on research activity; and, (6) they provide an opportunity for interchange with foreign researchers whose presence facilitates the very necessary process of evaluation.

Having described the products, we turn briefly to the quantity of output as measured by the data gathering instrument distributed prior to the conference (see Annex A). Question number "1", for example, asks about the total number of abstracts produced in the past year; question "10" concerns the indexes, while information about the bibliographies is the object of Section 4 of this Chapter.

While we praise, in principal, the data gathering efforts of REDUC on behalf of the internal self monitoring, the method of collecting data leaves something to be desired and complicates the task of providing clear indications of progress. The instrument is on the one hand very comprehensive but on the other it is not clear. It is a cross between an interview schedule and a questionnaire. It was intended to be a questionnaire. That is, it was mailed to respondents who were to answer its questions, except there were no questions, just blanks for data. Some Centers merely placed a mark alongside an item indicating their participation in that activity. Others placed a number attempting to quantify their participation. Still others responded "yes" or "no". The result was that it was necessary to return to the items during the conference itself in order to clarify the questions and the nature of the responses provided. Some improvement is called for.

There were indeed many praiseworthy accomplishments. We saw the physical products and reviewed them. Many of them are attached to this report. The bottom line is that REDUC produces. The quality of most of its products are impressive as is its productive capability. Table 1, which is the summary of the individual center reports, shows that 3312

abstracts were produced in 1985. This number is larger than the total number of abstracts available in the region in 1982 (see "Information on Education on Latin America: Accumulation and Retrieval", Ernesto Schiefelbein, REDUC, September 1982, p. 5). Production in other areas can likewise be seen in the table but summary quantification is not possible. Still our conclusion is that the REDUC network has fulfilled expectations of it, in amounts and to a lesser degree in overall level of quality.

A summary of materials published during the period under review can be found in Appendix D. Since we were not provided with all materials published we have separately prepared a list of materials personally examined by us. This list is Appendix C. For the benefit of readers interested in examining the actual products themselves we have attached the items listed in Appendix C (see attachment ii).

## B. Highlights of Conference

### 1. Participants

The official list of conference participants contains 36 names (see Appendix E). Twelve centers were represented from among this group. In addition to the centers, other organizations represented were: The Organization of American States, The International Development Research Centre (Canada), The Southeast Asia Regional Education Association, The Harvard Graduate School of Education, The National System for Education Information (Chile), and the United States Agency for International Development through its two contracted evaluators.

Participants representing REDUC network affiliates were either the directors or highly placed individuals who work directly with document preparation and dissemination. For example, in the case of Colombia (CIUP), the current director has been in that position for only three months. The two CIUP representatives have been active in the preparation and distribution of educational research materials for several years and were excellent choices for conference attendance.

The attendance of two Brazilians is especially noteworthy. The representative from INEP, the National Institute for Educational Research, is the person in charge of that country's educational research documentation library. The principal librarian from the Carlos Chagas Foundation, Brazil's premier private education research institution, was likewise present. Both were enthusiastic, participated actively and are committed to bringing the comparatively large Brazilian research product into the network of shared materials. The presence of Brazil makes REDUC's claim to represent Latin America fully credible.

What is important to observe is that with few exceptions, this was a conference at which all of the region was well represented. Participants were generally able and experienced. There was little unproductive comment. People attended all sessions and took notes. Our impression was that quite substantial quantities of information were shared. It was truly a working meeting with no pretensions, no flag waving, and little politicizing.

## 2. Agenda

The actual conference agenda we present as Appendix F. There was ample discussion of the agenda during the first session. And, although the word tentative appears in its title, the agenda as presented here was accepted by the group. We append it because it was quite strictly followed and though ambitious, was successful. That is to say, the topics appeared to be those participants wanted and needed.

In addition to the intellectual agenda, there was an explicit recognition of the need for after hours socializing and plans for such were made. Two of four evenings were set aside for CIDE initiated social activities: one, a lovely dinner at the home of a CIDE staffer, and the other a dinner and stage entertainment at a popular tourist restaurant. This appeared to us to be an appropriate amount of social activity.

A sample of the major items of the agenda would include: collection of the evaluation forms and discussion of the data; the preparation and

improvement of the abstracts; computerization of the REDUC database; evaluation of national meetings; state-of-art papers; experiences in the dissemination and use of REDUC materials; methods for increasing the utilization of materials; and conference evaluation.

In our opinion, the topics included in the agenda and the level of discussion provoked thereby were professional and productive. Highlights from the discussions are presented by topic:

a. Abstract Production

A comprehensive review was made of the entire process, from selection of materials for abstracting to the precise form and format to be followed. There was a discussion of the needs of users which should be reflected in the information contained in the abstracts. For example, abstractors were urged to provide better information regarding the category "sources".

b. Computerization

(1) The Charge

An integral component of the USAID assistance was the provision of funds for the purpose of establishing a computerized system of achieving educational bibliographic data. From the project design (598-0635), we cite the following: "Basic equipment such as files, library shelves and typewriters will be provided in year one. Microfiche readers, micro-computer and microfiche printer will be supplied in year two. This latter equipment will be accompanied by both staff and user training" (page 21).

In the letter of Cooperative Agreement (W.L. Hawley to P. Cariola, dated February 6, 1985), the Grantee agrees to "Perform a feasibility study on automated and micrographic components in network programs. The schedule and magnitude of this task, which is expected to guide and justify commodity procurement to be funded under the Grant, will be worked out jointly between A.I.D. and the Grantee" (page 4).

Roughly US\$86,000 for equipment and additional monies for software were available for the equipment (hardware) purchases. The budget provides additional funds for training and for software purchases.

The evaluation contract calls for the determination of whether the centers are computerized and, if so, how they are functioning in respect to their computerization. Our comments to follow are limited to CIDE/-REDUC headquarters, the only location to date where the called for computerization has been achieved. The balance of the computerization should occur as planned in the Project Paper. However, each Center participating in the field case studies was extensively queried concerning its plans for adopting computer systems as proposed.

## (2) The Study

Pursuant to the agreement, a feasibility study was conducted in 1984, and was published in October of that year. We have included this study as Appendix G. Written in English, the study is entitled: "Computation Requirements for the REDUC Network". The study reviews the operations of the Network as they pertain to computerization needs. The rapid, accurate and compatible interchange of abstracts and related bibliographic materials among participating Centers was long recognized as a need which a powerful new generation of microcomputers and related software could fill.

The specific operational needs considered in the report are:

- o a total capacity of output--12,000 RAE's by 1986;
- o a common format for abstracts produced among member centers;
- o a capability for easy exchange of abstracts within the region;
- o an increased production of indices and other materials designed to facilitate the use of RAE's through the identification of key words; and

- o an improved system for retrieval of abstracts and originals by prospective users based on key words familiar to the users and in the Spanish or Portuguese languages.

The report proceeds to a discussion of hardware and software configurations that would meet the several needs identified. Different estimates of storage requirements are made based upon a series of assumptions concerning formats and extent of data to be stored. Storage media (floppy diskettes and hard "fixed" disks) are described and their advantages and possible problems are presented comprehensively. In a field that is developing as fast as this one, it would be hard to imagine a more informed, thoughtful analysis than this one. This is all the more impressive in that it was done outside the major centers of computer development.

At the time of this evaluation, equipment had been purchased as recommended in the study. These purchases represent decisions of major consequence to the future operations of the center and the spread of computer capacity throughout the balance of the network.

### (3) The System Hardware

The heart of the configuration is an IBM PC AT. With 512K internal memory, the system, truly at the cutting edge of micro technology, boasts four separate storage devices. Mounted internally are two hard disk drives of 20MB capacity each. One is found in the normal location and the second in the location where a second floppy drive is typically placed. Additionally, there are two floppy drives. Internally mounted is an IBM high 1.2MB high density drive and a second 360K drive is externally mounted. This second floppy is required to read conventionally configured programs. The system includes a standard IBM monochrome monitor and an 80 column dot matrix printer linked to the computer by means of a standard parallel interface. As protection against electrical surges or spikes, a power conditioner was purchased but was not being used at the time of our visit. They planned to install it soon.

While recognized in the report as essential, a tape backup system was not purchased. We were told that this equipment was being sought and would soon be in place. Meantime, they rely on the high density floppy for backup. Current data require the use of six of the 1.2MB floppies diskettes for complete backup.

#### (4) The System Software

The second major purchase was that of software. Wisely REDUC decided upon a system which features a database manager, rather than one based primarily upon a spreadsheet or word processor. After reviewing several possibilities REDUC specialists decided upon DAYFLO, a well-chosen program for their purpose. System documentation is excellent. While the program is well suited to REDUC purposes and matched to its IBM PC AT host environment, it will also run on standard PC's or any MS DOS based machine. DAYFLO has proven reliable and "friendly". Not only does the computer specialist, an engineer named Andres Claro, understand the program thoroughly, he was able to explain the system and program in understandable language to interested conference attendees. The local REDUC clerical staff find the program simple to use and routinely input data in the now standardized format for all abstracts.

#### (5) Extension to the Other Centers

Other Centers will benefit from the decision to use the system as now operating at CIDE/REDUC headquarters. It is unlikely that IBM PC AT's, costing close to \$10,100 apiece installed, will be required for each center. Rather, REDUC is recommending, and we support their recommendation, that future equipment purchased be MS DOS compatible. Current plans are to purchase 20MB hard disk Leading Edge computers with 512K RAM at less than \$1900 each, approximately one fifth the cost of the IBM machine. In our estimation the Centers will note no appreciable difference in the ease of operations, speed or reliability of this equipment compared to that of IBM. We have suggested that REDUC purchase a copiable edition of the program from the manufacturers of Dayflo software. They will have to

pay more than the usual price for it; but, it will offer them unlimited access to the program for all network centers.

#### (6) Evaluators' Impression

We were impressed and satisfied with REDUC's decisions and purchases, as well as their speedy implementation of the system. The two latest editions of abstracts emanating from CIDE (see Attachment ii) were produced using the new computer system. They are an obvious technical advance and the staff is enthusiastic about the labor saving capacity of the new option. However, we saw the need to provide protection from electrical surges, install automated backup equipment, and take some security measures against equipment theft.

#### (7) Needs and Problems

Training and maintenance will be a larger problem than presently anticipated by REDUC. Some hardware failures will occur and substantial costs and delays should be expected. It would be well to identify the nearest competent repair facility for the equipment (computer and printer) for each Center.

Training will not likely be a great problem in the long run. However, due to the distances involved it is important that training be provided on-site, not at headquarters, and the trainer stay long enough to see the local Center through the first complete round of use. Otherwise a great deal of frustration and delay will result.

#### (8) Additional Use of Equipment

We recommend that three additional kinds of software be considered for future purchases. These could substantially improve the operations of the Centers.

- o Word processing software. Good word processing software could be of assistance with ordinary work in a variety of ways: for

example, in the production of indices, newsletters and current mailing lists.

- o Accounting software. Many programs exist for ordinary small business use including receivables, payroll, etc.
- o Statistical software. The new SPSS PC brings the power and flexibility of the mainframe to the same computer holding the abstract information. Using this tool of well known capability, each Center should have heretofore undreamed of capacity to conduct ordinary descriptive analysis and sophisticated multivariate estimation modeling. These programs run well on most IBM compatibles and cost less than US\$1000.

#### c. Evaluation of National Meetings

Representatives from each national center described their experiences in holding their own national meetings. Most of the meetings were held for the educational research community. By bringing researchers and users together most centers were able to realize what they perceived to be their greatest success. Bibliographers, documentalists, abstractors and other purveyors of information were not in attendance as in the case of this international conference. Questions were asked and useful advice were given on how to run successful conferences.

#### d. State-of-the-Art Reviews

A CIDE representative made the principal presentation seeking consensus in the group concerning some very fundamental issues in these large scale literature reviews. The paper which was accepted by the group as the REDUC guide for these reviews is presented as Appendix K.

Conclusions reached concerning these reviews include:

- o Researchers, not bibliographers should write these papers.

- o The papers must go beyond description to include an explanation of relationships.
- o There should be a very applied bias. That is, if no one is interested in the solution to the problems, then that problem is not an appropriate topic.
- o State-of-the-art papers must be critical and evaluative.
- o It is important that papers inject estimates of costs associated with recommended interventions.

While we like the fifth and last suggestion, we find it an unusual one for a state-of-the-art paper. What the group really seems to want is less of a definitive statement of what is known on a given topic and more of a policy paper that draws on a thorough review of pertinent research literature to bolster its argument and recommendations.

As a footnote, most conference participants seemed to find the term "state-of-the-art" unfortunate when translated literally into Spanish. It was a term which they had inherited from English speaking researchers and which they accepted while really preferring something else. It is curious that the term is not often used in English and almost never in the way Spanish speakers use it to denote a comprehensive literature review. In English, state-of-the-art might apply to a review but more often to research itself at the cutting edge in a particular discipline. Because of its inherent pretentious nature, the term is seldom used. We suggested that they rethink the Spanish usage but apparently the momentum behind the current usage is worth more than anything to be gained by changing terminology at this point.

#### e. Diffusion, Use and Impact

These topics were central to the conference and appeared in different ways and times repeatedly throughout the proceedings. We thought it particularly helpful that there was so much interest expressed in actual

experiences. The Colombian delegation insisted that a long range education approach would ultimately prove most helpful in information dissemination. They stressed the wisdom of not emphasizing the specific number of contacts made with users but rather the need to educate potential users to the benefits of good information.

We were impressed with the number of cases in which university or academic communities have apparently recognized the value of the abstracts, bibliographies and other REDUC material. Repeated mention was made of the usefulness of these materials in teaching the process of researching education and other social issues. The material lends itself well to approaching research from a variety of perspectives: national, regional, and topical.

f. The Future of REDUC as an Information Network

Despite the absolute importance of REDUC/CIDE in the initial establishment and current operation of the Network, it was repeatedly stressed that the centers themselves are the lifeblood and future of the organization and that the network can be no stronger than the centers which comprise it. This was a major theme of CIDE conference organizers. We believe their intent (though unexpressed) was to wean the centers from overdependence on CIDE/REDUC headquarters, especially as a source of future and perpetual funding. Inspiration and encouragement was provided by Padre Patricio Cariola, an obviously much loved and respected figure. Centers were encouraged to innovate and seek funding from national and international sources, public and private.

g. Conference Evaluation

A couple of hours at the end of the conference were directed toward eliciting from participants a critique of the meeting itself. It turned out to be as much an opportunity for self congratulation and expressions of appreciation for the Chilean hospitality. However, a number of important suggestions were made for future meetings: (1) centers should mail information to CIDE before a meeting to avoid the need to report

during the conference itself; (2) the data gathering instrument for evaluation should be simplified and clarified. It could perhaps be given to one center other than CIDE to improve; (3) less emphasis should be placed on the quantity of RAEs produced as this in part is a simple reflection of the amount of education research in a country and not the level of activity of a center; (4) the emphasis on quantity is important but not to the exclusion of some discussion of the quality of the research product, the substance of what lies behind the abstracts; and (5) more time should be provided for sharing experiences.

#### h. Technical Advisory Committee Meetings

During the course of the Conference the Committee met on several occasions, usually for lunch. A variety of topics were discussed including the AID sponsored evaluation. The evaluators were present by invitation and answered questions concerning the evaluation process. Notes from the committee meetings were made available to us (Appendix M) and reveal a sincere and serious purpose and positive leadership.

### 3. Outside Participation

There was significant participation in the Conference by individuals outside the network, some of the groups represented were:

- o National Education Information System (Chile)
- o Southeast Asia Research and Review Advisory Group
- o Southeast Asia Ministers of Education Organization
- o Organization of American States
- o Harvard University (Prime contractor for AID's Basic Research and Implementation for Developing Education System Project)

- o International Investigation Center for Development (part of Canada's overseas aid programs)

We feel this was an important part of the activity and will further to the effectiveness of REDUC.

a. National Education Information System (SINIE) - Chile

Maria Angelica Palaviano represented SINIE throughout the Conference. SINIE is an extensive Chilean educational network which has been functioning separately from CIDE in Chile. Negotiations have almost been completed to combine these two national networks. Ms. Palaviano talked to the assembly and presented an informative video on university and ERIC information systems. One of SINIE's publications is included in Attachment 11.

b. Southeast Asia Research and Review Advisory Group (SERRAG)

The president of SERRAG, Ramon Salinas, gave a talk during the Conference and explained the functions of SERRAG. He also reviewed recent research and investigation activities in the Philippines, which included the preparation of a 9,000 entry annotated bibliography of recent Philippine educational research and investigation. Salinas stated that SERRAG plans to adapt the REDUC system and its technology directly to the needs of Southeast Asia.

c. Southeast Asia Ministry of Education Organization (SEAMEO)

Ms. Arfah Aziz, the Executive Director of SEAMEO, also attended the conference. She will be a key person in the implementation of a REDUC type program in Southeast Asia. Ms. Aziz does not speak Spanish and did not make a formal presentation. However, we did spend considerable time with her informally discussing research, investigation and information dissemination problems in Southeast Asia. She seemed to be an enthusiastic supporter of adopting the REDUC system to their part of the world.

d. Organization of American States (OAS)

Raul Allard, OAS Country Representative in Chile and formerly Chief of the Education Division in OAS/Washington, spoke on the Computerized Index of Educational Projects. The index (see attachment ii), which utilizes a format similar to REDUC's abstract system, provides summaries of recent and significant OAS education projects. Mr. Allard also distributed and discussed an important 1984 OAS publication on the internal efficiency of primary education (see attachment ii).

e. Harvard University (A.I.D. BRIDGES Project)

Noel McGinn, who represented Harvard University and the AID Basic Research and Implementation for Education Systems (BRIDGES) project provided valuable professional and technical assistance (see Appendix J) to the Conference and to our evaluation tasks.

It is our understanding that the BRIDGES project will contract with REDUC to produce five "state of the art" papers. In addition, REDUC, with BRIDGES' support, will provide 250 abstracts and other review papers in education.

f. International Investigation Center for Development (IDRC)

Finn H. Damtoft, the IDRC Representative in Bogota, attended the conference. IDRC has provided about \$100,000 U.S. per year from Canada's aid program to REDUC to assist in the implementation of the network.

4. Anticipated Conference Outcomes

The conference itself was a major undertaking and will have important consequences. We anticipate the following outcomes:

- a. The REDUC model will be exported to other regions.

We suggest that this will happen because of the enthusiastic presence of important educational research figures from Southeast Asia (Malaysia and the Philippines). Also, it is clear that this approach to linking the education research community to education policy makers is viable and probably will have a long term beneficial impact on education in the Latin American region.

- b. REDUC will provide technical assistance to other regions.

To some extent this is already happening. Our own experience in other regions leads us to the firm conclusion that in this kind of endeavor, the CIDE/REDUC group (and to some extent individuals in Colombia, Costa Rica and Brazil) is well qualified and can provide technical assistance to other developing regions.

- c. Work of national centers will improve the quality, quantity and use of research information.

Through national meetings, requests for material, and dissemination of pertinent, high quality information, the centers will stimulate the production and impact of research based information.

- d. National centers will become computerized.

The advantages of modern data processing equipment and related IBM software are now well recognized by this group and it will move to obtain and use this new technology as its resources permit.

- e. REDUC will focus more on actual use and impact of network derived materials.

A principal focus of the conference was the use and impact of such materials. Current examples of success in this regard are encouraging.

Given the interest, dedication and competency of the conference participants in relation to this objective, we feel confident in predicting ever increasing success.

f. Next regional meeting is planned for Brazil.

We regard this a positive sign that the concept of a regional organization has become a reality. The active participation of Brazil with this group will have a dramatic and positive impact on the organization and take it to a new level of accomplishment.

## 5. Conference Critique

### a. Conference Organization

CIDE/REDUC conference organizers did a superior job in attending to the administrative details of the conference. As examples, we observed that participants were met at the Santiago airport, given cash advances in the local currency and placed in a good and moderately priced hotel near the Santiago metro line thus facilitating local transport to the conference site and eating establishments. They handled the production of the inevitable large volume of conference-related papers in an expeditious fashion.

CIDE/REDUC recognized the physical limitations of their one conference room which was small and warm. We worked under these conditions so that participants could spend time in direct contact with headquarters staff and become familiar with the routine and operations of headquarters. The participants agreed to this approach at the beginning of the conference.

The actual agenda, as seen in the previous sections, was full and perhaps overly ambitious for the available time and physical circumstances. We add, however, that the agenda was carefully constructed and contained the correct elements in proper sequence. Some tedium could have been eliminated by more forethought into preconference data collection

activities. It is rarely advisable in a group of this size (13 countries were represented) to interview each one seriatim for reporting detail better collected outside a formal session. This is not a critique of the reporting requirements which in fact produced valuable insights into network operations.

The long and tedious professional activities were punctuated with the correct amount of socializing in the evenings. Two activities were planned and almost universally attended. One, a lovely buffet dinner, was given by a CIDE staff member at her home and the other, a dinner in a local restaurant, was the culmination of conference activities.

b. Content--Quantity and Quality

The content of the conference was germane, well received and professionally presented with few exceptions. Some sessions were excessively theoretical (e.g., the session on computers and computerized systems). A more "hands on" approach would have better-suited to the background and needs of the audience. The conference attendees were well prepared with their own handouts and participated actively in discussions. The overall level and tone of participation reflected high professionalism and a genuine spurt of cooperation.

c. Participation

After initial welcoming formalities, each participant was paired with another. Time was then given for each pair to become acquainted and to prepare short introductions. These introductions were subsequently presented to the assembly with the result that a spirit of friendship and collegiality was established that permeated conference proceedings from that point. Participants spoke often and freely. While small group sessions were absent from the proceedings, our impression was that no single group dominated and that everyone participated and was respectfully heard.

#### d. Level of Activity

Sessions began at 9:00 a.m. and ended at 6:00 p.m. or later. Participants took their involvement seriously and worked hard. There were few absences from sessions. For future conferences, we suggest scheduling more small, special interest workshops, and more time for individual sessions with headquarters staff.

#### e. Interpersonal and Professional Exchanges

We observed a high level of interpersonal exchange and heard frequent reference to new professional relationships that we expect will be of continuous benefit to future network operations. There were lively exchanges of documents and ideas outside of conference sessions.

#### f. Emulation and Motivation

The simple contact of conference attendees with each other and especially with CIDE/REDUC headquarters, opened new horizons of opportunity and new and different methods and operations. Moreover, attendance infused a spirit of optimism and appeared to energize participants. We cite two examples: first, most centers have had limited contact with USAIDs; however, two national centers described what appeared to be excellent working relationships with their respective USAIDs; second, few centers have developed good contact with news media in their countries. However, conference participants saw a video of an actual TV interview focusing on center activities in the Dominican Republic (see attachment 1.).

#### g. CIDE/REDUC Role in the Network

The significance of the CIDE/REDUC leadership is substantial. In terms of training, experience, dedication, and enthusiasm this group rivals the best anywhere in the world. The importance of this observation is seen primarily in the willingness of this group to work with individuals

from all professional levels. The effect of this is to set a model for professional development that represents a truly world-class standard.

#### h. International Solidarity

We feel that the conference contributed to the sentiment of a common Latin American identity. We draw attention to the significance of this fact in this particular region. Especially noteworthy was the statement of the Brazilian representatives that as a consequence of the Conference, they personally (and by implication their institutions) were eager to reclaim their common Latin heritage. The establishment of regional solidarity will doubtless prove beneficial to future network operations.

From our perspective as observers and principal investigators, the conference/workshop was a success. We lived and worked with the participants and were in attendance in all sessions and were invited to speak frequently. We were called upon to offer professional advice and opinions. We met twice with the Technical Advisory Committee and enjoyed frank and cordial interchanges on a variety of topics all of which were duly noted in the minutes of those meetings.

## CHAPTER IV

### INTRODUCTION AND SUMMARY

This summary highlights major findings of Chapter IV which contains five case studies conducted during the evaluation. REDUC Headquarters (CEDIE), Colombia (CIUP), Costa Rica (CEMIE), Guatemala (CINDEG) and the Dominican Republic (CEDIE) are reviewed. The evaluators developed a standard "Interview and Data Gathering Schedule" (See Appendix Q) which investigated the management of each center, utilization - focus on the user, and impact of utilization.

#### REDUC Headquarters

REDUC Headquarters is responsible for the network's coordination. Overall we found its work to be highly professional, well organized and on schedule in terms of project design targets. However, we found some deficiencies resulting in recommendations which were included in the Draft Project Evaluation Summary, Chapter V.

The evaluation looked at some of REDUC's major responsibilities and found the following:

- o All activities are coordinated with the local USAID or Embassy.  
Finding: This was not happening in all centers.
  
- o All project activities prominently show A.I.D. as a program co-sponsor.  
Finding: Most activities do not show A.I.D. as a program co-sponsor.

- o REDUC will conduct a feasibility study prior to purchase of computer equipment.  
Finding: An excellent computer feasibility study was completed.
- o Provide technical assistance and complete two visits a year to each national center.  
Finding: Completed.
- o Organize two bi-annual regional seminars.  
Finding: On target.
- o Publish regional journals of abstracts.  
Finding: Ahead of schedule.
- o Assist national centers publish national editions about national education problems.  
Finding: Ahead of schedule
- o Prepare four comparative educational studies.  
Finding: On schedule.
- o Prepare codification manuals for the information system.  
Finding: On schedule.
- o Fulfill financial accountability responsibilities.  
Finding: REDUC/CIDE and centers visited have adequate financial accountability.
- o Develop a utilization, use and impact plan for target groups and decision makers.  
Finding: Not completed.
- o Select new national centers.  
Finding: Completed except for Honduras, which is scheduled for mid-1986.

### Four National Centers Visited

The centers are adequately staffed with qualified and highly motivated professionals. An additional professional for CEDIE in the Dominican Republic is justified because it has two widely separated branches. Except for training to utilize the new computers, no new significant staff training requirements were encountered.

The physical facilities are generally just adequate but cramped. However, two of those are not easily accessible to the public. All four centers appear to be scheduled to receive computers this year and have made plans for installation, use, training, supplies, maintenance and repair. No major difficulties are foreseen with computerization.

Both evaluators were impressed with the center staffs' dedication to the network, high morale, and the high level of activity.

For both utilization and impact we found a major deficiency. The network has not implemented a system to adequately monitor and report these factors in a more or less uniform pattern throughout the program. The evaluators pointed this out to officials in the Santiago, Chile Regional Seminar and in each country center.

We observed more use of the network by students, academics, and practitioners than by decision makers. We discovered this by interviews and looking over isolated sections of reports, visitor logs, and articles. However, REDUC staff in Santiago and national center personnel in two countries agreed to address the problem of monitoring and reporting utilization. In each center we confirmed that large numbers of students, teachers, and academicians use the REDUC materials but felt our findings were incomplete. Student, teacher, and academician utilization centered around preparation of papers, theses, and uses as instructional and reference materials. Except where we asked individuals, decision makers utilization of the materials was not available.

We found definite cases of impact on decision makers, i.e. in the Dominican Republic mathematics achievement study, the Guatemalan youth values study, etc. The evaluators felt there had been more impact in all of the centers but could not verify it.

There were common themes found in the four centers visited. These were:

- o Enthusiastic support of the REDUC system.
- o Appreciation for the fact that for the first time most significant education research was now organized and could be found easily.
- o A broader awareness of what other LAC countries have done in educational research.
- o Disciplines other than education should be systemized like REDUC.
- o Decision makers should be made aware of REDUC's resources and use valid data for decision making.

Apart from the seven formal recommendations given in the Executive Summary the following suggestions are submitted for A.I.D. and REDUC consideration:

- o Conduct a survey of all centers in terms of space, layout, and public access. Recommend improvements.
- o Assist national centers to implement the above.
- o Establish more uniform criteria for selection of base documents to be abstracted.

- o Target key decision makers and develop a detailed plan to get them to use the REDUC system. Possibly each center could select 15-20 key decision makers.
  
- o Encourage centers to broaden their user audience. There is a tendency for centers to serve those close by and not reach out. For example, centers affiliated with universities tend to serve the academic university community and ignore the MOE. Centers in MOE's serve the MOE and ignore the universities.

## FIVE CASE STUDIES

### A. REDUC Headquarters (CIDE)

The principal investigators spent time and effort evaluating REDUC headquarters which is part of CIDE in Santiago Chile. CIDE is a Chilean organization which employs about fifty individuals in a variety of programs including research, investigation, social service, literacy programs, development of both urban and rural instructional materials, etc. As an integral part of CIDE, REDUC, which has four and one half professionals, two secretaries, and a one-quarter time accountant, (see Appendix R) shoulders major responsibilities for coordination of the Latin American Network and other international activities. However, REDUC has full access to the extensive resources of CIDE.

Under the terms of the Project Paper, REDUC/CIDE is the project grantee and is responsible for project management and information system coordination. We have summarized some of the major REDUC areas of responsibility under the project so that the reader has a clear picture of its scope of work.

- o All activities are coordinated with the local USAID or Embassy.
- o All project activities prominently show AID as a program co-sponsor.
- o REDUC will conduct a feasibility study prior to purchase of computer equipment.
- o Develop a utilization, use, and impact plan for decision makers.
- o Select new national centers.

- o Provide technical assistance and complete two visits a year to each national center.
- o Organize two bi-annual regional seminars.
- o Publish regional journals of abstracts.
- o Assist national centers publish national editions about national education problems.
- o Prepare four comparative educational studies.
- o Prepare codification manuals for the information system.
- o Fulfill financial accountability responsibilities.

We utilized a modified approach to the Interview and Data Gathering Schedule (see Appendix Q) and investigated management, utilization, impact, provided an overall impression, and commented on CIDE as a national center.

#### 1. Management

We interviewed and worked with the REDUC staff (see Appendix R) and also talked with about fifteen professional members of the CIDE Chilean staff.

CIDE is located in downtown Santiago, Chile and is housed in a three-story, fully utilized building. The first floor has a reception area, library-research material room which is open to the public, a display room for educational materials, and office space. The second and third floors are mostly small office spaces with a conference room and an accounting office. The cellar, which has low ceilings, houses printing, microfiche, xerox, copies of every publication abstracted, and supplies. Every inch of available space is used in the building.

Holsinger and Fitzgerald visited the entire building and reviewed the printing, xeroxing, computer facility, microfiching, abstract document files, computer system, and accounting office.

Except for the cramped space, we found the physical facilities to be well managed and it appeared all equipment, both project and non-project was in operational status and adequate provisions have been made for safe keeping, repair, and maintenance. We saw no down equipment. Everything was neat, in order, equipment covered when not in use, and clean.

Both investigators were positively impressed with the REDUC and CIDE staffs. The REDUC personnel is highly qualified in training and experience. However, more importantly, they all have taken aggressive leadership roles in their respective areas of expertise. As we talked with them, it was clear they understood the purposes of the project, their individual roles, and they appeared to be working as a team for the regional network.

REDUC's professional staff level is such that they have not been provided formal training except in the use of the new computer system. They meet about two hours per week to plan, discuss problems, and work on project implementation. There had been some isolated cases of on-the-job-training for a few of the professionals, who were deficient in specific areas.

As was described in detail in Chapter II, Part B, of this report, CIDE/REDUC seems to be making good progress in the computerization of the network. The investigators had made some technical recommendations to improve the system and it appears REDUC will adopt them. The employment of Andres Claro, a qualified computer expert, has been a very positive aspect of computerization.

We met with the project Controller and his staff to review financial procedures. There was evidence of an adequate accounting system with ledgers on the overall project, each national center receiving money, and by category of expense. We saw vouchers, receipts, and price quotes on equipment purchases. A.I.D. activities are handled separately and due to

the instability of the Chilean economy and currency, all CIDE/REDUC money is deposited in a bank in New York, U.S.A. We also saw financial reports such as: REDUC to A.I.D., REDUC to the Chilean Government, and national centers to REDUC, etc.

Our general impression of the management of the project was quite high. The REDUC staff is well trained, has good experience, and is truly dedicated to the establishment of a functioning educational research and investigation network. We found morale to be high and the level of activity to be above what was expected. REDUC personnel appear to understand A.I.D.'s target groups and, furthermore comprehend the importance of providing valid and reliable data to decision makers, researchers, and teaching professionals.

In our discussions with the REDUC staff, we looked at the responsibilities of CIDE/REDUC in terms of the items listed in the first part of this section. There were some deficiencies found and recommendations for action are included in the draft Project Evaluation Summary. Most of the targets were met except those noted.

First, REDUC has not assured that all project activities, including publications, announcements, etc. clearly and prominently show A.I.D. as a program co-sponsored. The evaluators pointed this fact out to Patricio Cariola, the Project Director, and he did announce in a Conference general session that each center must comply with this requirement. Nevertheless, we feel both the REDUC and A.I.D. project managers should follow up intensively on this aspect.

Second, we ascertained that the coordination and cooperation between national centers and local USAIDs has been spotty. For example, the working relations in Guatemala and the Dominican Republic have been outstanding, but in some of the other centers almost non-existent. Again, the evaluators pointed this out to the Project Director, Cariola, and he brought it up during a Conference general session. A lively discussion followed. Obviously, a few of the centers had not contacted or really tried to work with their USAIDs but others reported that the local USAID

had little or no interest in the REDUC network - this seemed to be the case more where there is no education officer and/or no education program. The draft Project Evaluation Summary contains language which recommends that the A.I.D. and REDUC project managers follow up on this area.

Third, REDUC agreed to establish two new centers in Central America. A center has been established in Guatemala and negotiations are underway for Honduras. It is recommended that REDUC establish the Center in Honduras quickly to complete the network.

Any new activity such as REDUC, can suffer from credibility and acceptance syndromes. Since the outset, the network has had a Technical Advisory Committee, made up of educational researchers and education leaders from throughout the region. These well-known and respected educators have given the activity credibility, status, and additional regional and in-country acceptance. They also provide general guidance on policy, critical areas to be addressed and the functioning of the program. They met on a regular basis throughout the conference to carry out their duties (see Appendix M).

It is interesting to note that Bolivia led a move to have the national centers take over the Technical Advisory Committee. This action failed but the Committee did add a member - the Director of the Dominican Republic national center, Amarilis de Zapata - to represent the national center point of view. This should strengthen the functions of the Technical Advisory Committee.

## 2. Utilization and Impact of Utilization

The REDUC network has produced an enviable amount of abstracted, bibliographic, and "state of the art" materials (see Tables 1,2,5, and 6). Chapter III, Part B, provides a more complete analysis of this report's findings in terms of national center data. It is obvious the national centers have a good control of what they produce, how it is produced, and who are the recipients. Considerable time was spent during the Regional Conference in Santiago and with over four visits to national centers

discussing the questions of utilization and impact of utilization of network materials. There is quite a bit of anecdotal evidence that the materials are being utilized (see Table 4); however, we could not find a systematized format running throughout the network which pinpoints these areas. We discussed the problem in REDUC and also in field visitations. One of the recommendations in the draft Project Evaluation Summary is for the "REDUC network to develop a plan for the continuous, systematic and comprehensive evaluation of information dissemination, use and policy impact." There is a need to develop measuring instruments such as questionnaires or structured sample interviews which provide adequate follow up. The network should develop quantifiable and verifiable indicators which clearly demonstrate use and impact of use. CINDEG, the Guatemalan national center, is developing a pilot instrument to measure use and impact of use, which they plan to submit to REDUC for possible network wide use, improvement, and/or adaptation. A better quantified assessment system of utilization and impact of utilization could easily be in place within four to six months.

On the other hand, as we discussed the network with REDUC, national center officials and users, the overwhelming opinion was that the network was needed, the information is being used and that its use will eventually have impact on the target group. We agree, but maintain that the reporting system is needed in place to back up REDUC's continuing functions.

A related issue facing REDUC is the quality of the documents selected for abstraction and the quality of the abstracts themselves. In the beginning, there was a tendency toward quantity rather than quality. Stress was placed on quantifying and abstracting everything available and the abstracts themselves varied greatly in quality. Dr. Noel McGinn, Harvard University, verified this for us by reviewing different publications during the workshop and concluded there was a wide variation in quality.

REDUC has worked with national centers extensively to standardize and improve the quality of abstracts through site visits, regional training sessions, and OJT experiences. The quality of abstracts has improved. We

feel REDUC could provide more guidance and assistance in helping national centers establish criteria for the selection of documents to be abstracted. A data base predicated on abstracts of documents or bibliographies of limited utility will be of little use to the three major target groups of the project.

### 3. CIDE Documentation Center

The evaluation team also visited the CIDE Documentation Center which serves both as a national center for Chile and additionally as the distribution point to national centers. Chilean abstracts and indexes are sent to local investigation centers, universities, libraries, ministries of education, academics, and other private individuals.

The uses of the materials in Chile vary widely. Many students and college professors utilize the materials for thesis preparation, classroom assignments, and bibliographic studies. Since CIDE has one of the most complete repositories of educational research information in Chile, Ministry of Education officials do use the center extensively. They find information quickly which is not available elsewhere.

The CIDE Documentation Center has developed a short questionnaire for users to fill out in order to obtain comments and feedback. They receive about 100 of these a week and base future program emphasis and adjustments on the questionnaire results. The Center Documentalist told us that CIDE staff had not utilized the information available in the network to its potential. To solve this problem, CIDE has planned a one day in-service training seminar for early this year. Mrs. Martha Ceballos, the documentalist, also stated that the CIDE/REDUC leaders plan to clarify the functions of the national CIDE Documentation Center vis-a-vis its role as regional center which has been confused in the past.

The CIDE Documentation Center provides a dissemination service to the network. They send approximately 600 abstracts and 200 indexes each year; maintain a cardex on 100 individuals and 550 institutions; maintain distribution and receipt records; and maintain feed-back information. We

were quite impressed with the Documentation Center's productivity since Mrs. Ceballos is the only employee.

B. Colombia (CIUP)

1. Management

a. Methods

(1) Interview notes containing name and title of interviewee are located in the following section of this report, entitled "Utilization--Focus on User". The evaluator met with the individual interviewed in his/her office.

(2) The complete production of REDUC related materials was reviewed. Some items were examined in detail but, in the main, they did not differ in nature or quality from those produced at CIDE headquarters.

b. Information Flow to User

(1) Staffing at CIUP. Staff members at CIUP responsible for the REDUC project, including the production and dissemination of abstracts, are:

- o German Vargas Guillen, Philosopher, full-time
- o Gloria Calvo de Mina, Psychologist, 3/4 time
- o Marina Camargo Abello, Sociologist, 3/4 time
- o Edgar Suarez, Sociologist, 1/4 time
- o Cesar Vera, Historian, 1/4 time
- o Francisco Parra, Educational Psychologist, 1/4 time
- o Christian Hederick, Mathematician, 1/4 time

The first two individuals listed appear to have been the generating force behind the considerable REDUC activity in CIUP. Gloria Calvo takes

most responsibility for coordinating the production of abstracts and is project manager for REDUC inside the CIUP administrative structure.

Maria Cristine de Ferro, a former CIUP director, is now academic Vice Rector of the UPN. We met on the morning of the first working day and she was actively involved in planning the details of the visit. Her commitment to REDUC is substantial and obvious. REDUC is but one of many CIUP projects but it is one of the most visible and important to the university. The Rector of the University, Cecilia Reyes de Leon, met with the evaluator on several occasions. One of the strengths of REDUC in Colombia is that it is tied intimately to the only public teachers college in the nation and, furthermore, it represents to that university staff and government planners, a valued institution.

Another person who works long hours and effectively for REDUC is the UPN librarian, Ingrid de Ceballos. If she were listed formally as a REDUC staff member, it would be no distortion. She works as much as anyone in behalf of dissemination.

The Head of DANE (Colombia's government statistical agency), Mauricio Ferro Calvo and several members of his staff, have put in many person/-years of time on behalf of REDUC but are not formally counted as staff. They work in a completely separate government institution but because of their efforts toward the total computerization of REDUC materials, they have advanced the cause of dissemination to levels not enjoyed presently by any other Latin American country.

Additional staff needs at CIUP are in the area of management of dissemination and computerization of abstract production. The area of a coordinated approach to nation-wide dissemination needs to be carefully rethought by someone with some media experience. They need technical assistance to help them: (1) build and maintain a continuously updated mailing list of educational authorities and decision makers; (2) avoid unnecessary duplication of effort; and (3) harness the substantial enthusiasm for REDUC and the voluntary good will that REDUC enjoys.

## (2) Staff Training

The small staff assigned to REDUC inside CIUP is well trained in bibliographic methods and essential matters pertaining narrowly to abstract production. There is no micro computer at CIUP, an obvious and immediate need. DANE has several micro computers and uses them expertly for data and information retrieval. But it is an oversight not to have such equipment located at CIUP and train individuals in its use.

## (3) Physical Facilities

CIUP occupies a finely maintained old brick two story house that is both pleasant and adequate. Office space is shared and the Center seems to be well equipped.

### c. Computerization

There is the anomaly in Colombia created by the impressive work at DANE, the national statistics agency. CIUP and the National Pedagogical University have no micro computers or computer skills. Also the University Library, with its impressive REDUC documentation center, has no microcomputer technology, to receive, retrieve, create or send information. Yet DANE computerized the entire REDUC library of abstracts and made these available through terminal links emanating from a central source to six different locations throughout the country. Moreover, DANE has downloaded the entire REDUC system software (of their own creation) and textual data (RAEs) to microcomputers which then function as stand alone systems. This is unique to Colombia.

There is need to find a way to locate a microcomputer with the REDUC collection securely stored on an internal hard disk to CIUP or UPN which have responsibility for REDUC.

In summary, CIUP wants and needs a microcomputer. There is some confusion concerning whether or not CIDE/REDUC will finance the acquisition of this computer and have its technician travel to CIUP to assist

in the training of persons designated for its use. These points should be clarified.

d. Support to CIUP From CIDE/REDUC

(1) Financial Procedures

CIUP maintains records of all financial transactions relative to REDUC. For 1985, the totally operating budget of the REDUC project was US\$31,753 of which REDUC's (Chile) portion was \$15,405 (48.52%) and CIUP/UPN portion was \$16,348 (51.48%). By agreement no attempt at audit was attempted to determine whether in fact money was spent as budgeted. The evaluator was shown records which appeared to indicate a satisfactory accounting scheme was in place and functioning.

(2) General Impressions

One must make a distinction in Colombia between the formal staff assigned specifically to REDUC and the great number of people in the National Pedagogical University and elsewhere who also enthusiastically support the REDUC endeavor. This is a clear instance where A.I.D. support is more than matched by local financial input. This is a project that many people want to support.

The current leadership vests in two young people: German Vargas (Lic. in Philosophy) and Gloria Calvo (Masters in Psychology). They are in their twenties, bright, ambitious and committed. They are well assisted by others at CIUP and UPN, and by intellectuals and educational researchers in the country. CIUP is now planning the Third Conference of Educational Researchers which provides yet another opportunity for them to gain visibility and for researchers to use them as a vehicle for spreading their own products.

It appears that present knowledge of CIUP services is limited chiefly, but not exclusively, to academic circles. To date, that has been their principal inroad. This will continue for a while longer. The

challenge for the future should be to build closer inroads with the Ministry of Education and other national and departmental planning and administrative bodies. So far they have not done well in this respect.

## 2. Utilization--Focus on the User

Professor Romulo Gallego, Director CIUP (Centro de Investigaciones de la Universidad Pedagogica Nacional)

Professor Gallego had been Director of CIUP for slightly less than one month when we met. He does not have a doctorate but is the only person in CIUP who has faculty status at the UPN. He is a young physical chemist with interest in REDUC and disposition to support REDUC but has by no means been the driving force behind its progress in Colombia. His conviction is that science education has been neglected by CIUP/REDUC and that he would like to see more emphasis in this area. He suggested that by including abstracts relative to science education, many more faculties would find reason to become involved in REDUC activity.

The CIUP Director related that German Vargas, one of the CIUP representatives to the Santiago Conference, is actually a Ministry of Education employee. He works full time on REDUC which demonstrates a positive sign of Ministry interest in REDUC.

Professor Gallego stated that the predecessor organization to CIUP was an official research center called ICOLPE. The general feeling was that it should have had closer university/government connections and more international projects. When CIUP was created, there was a feeling that it would assist the University.

REDUC activities were central and vital to CIUP's operations because analytical abstracts of education research material was viewed as a way of increasing the interest among faculty and students in research. Today, teachers at the National Pedagogical University are actively encouraged (and/or required) to use REDUC materials. The University sees its role as the innovative arm of the government in education.

**Ingrid Muller de Ceballos, Director of REDUC Documentation Center,  
National Pedagogical University**

Sra. Ingrid has a doctorate in comparative education from the University of Belgium and is a German-born naturalized Colombian. She possesses prodigious energy and near fanatical organizational capability as manifest in the records she keeps of all REDUC-related activities that occur within her domain as Director of the Documentation Center within the University Library. Her center operates in a large, clean separate wing which appears to be about one fourth of the total university library. The center has modern microfiche readers and copiers, substantial shelving and other storage facilities. The Director and her staff exude confidence and competence and are obviously proud of their REDUC role. The prominence of REDUC is visually displayed in the foyer of the center which contains a large six foot map of Central and South America under the heading of REDUC and with all national centers of the network located and labeled on the map.

The function of Dr. Ceballos and her staff is pivotal to the question of utilization in Colombia because it is to this center that users are directed. Academic seminars, of which five are underway in the current semester, are held in the center and focus on bibliographic research methods. Other indicators of use of REDUC materials are not hard to find as a record of every visit to the center and its purpose is carefully maintained and was examined by the evaluator. Visits run between 900 and 1000 per month and almost invariably include consultation of abstracts, indices, and bibliographies of REDUC origin. A very popular item at the center is an index of press clippings which has been methodically maintained for many years and carefully indexed, an extraordinary collection. The center facilities are themselves a limiting factor in use. There are 16 seats for users in the consultation room. From 1979 to 1985 the average monthly visits to the center have increased 1000%.

It became clear that this documentation center is a powerful force and a vital link between CIUP which produces the material and the world of

users in Colombia. It is also a manifestation of the extent of commitment of the National Pedagogical University to the entire process.

Mauricio Ferro Calvo, Director, National Department of Statistics (DANE)

One of the most interesting and revealing interviews in Colombia was with Dr. Mauricio Ferro. The broadly educated (including a Harvard M.A.) and energetic director of the important national statistics center is an avid and vocal supporter of REDUC. To say that he receives all REDUC materials understates his personal commitment to and involvement with REDUC. Indeed, next to CIUP and the National Pedagogical University, DANE is at once Colombia's single biggest consumer and disseminator of REDUC information.

The DANE involvement with REDUC has been vast. DANE has taken the entire REDUC library of abstracts (through 1985) and entered it manually in their own computerized IBM system. They did this on their own without technical assistance from CIDE/REDUC. The REDUC library resides on a fixed disk storage media of the DANE mainframe computer and is accessed through remote terminals. Other terminals are located throughout Colombia at six regional DANE offices. The REDUC collection of abstracts is available instantly and without cost to all potential users in Colombia who have access to one of these six locations. In addition, they have downloaded the entire collection to a Wang Microcomputer which then operates in virtually identical fashion as a stand alone operation without accessing the mainframe through a terminal. The programming represents a substantial commitment of costly professional time. The existence of this computerized Colombian network was not known in Chile and there has been considerable duplication of effort. At something slightly less than \$1000 USD, the Dayflo program is less costly than hiring a programmer or a team of programmers to write a similar program. It would also have been possible for CIDE to mail diskettes containing the REDUC abstracts (written as ASCII files and therefore quite readable by any number of microcomputers at DANE) thus eliminating the considerable work of entering thousands of abstracts manually into the

DANE/REDUC system. DANE director Mauricio really did not fault these observations. It appears simply to have been a lack of communication.

The intent of DANE is to have an ERIC-like system as part of a much larger data information system; like combining ERIC with TIME NET. In addition to the plan of continuing to update the REDUC-based computerized system, DANE programmers and statisticians have produced an impressive inneractive computer program for educational planning and forecasting. Using research studies appearing in REDUC abstracts and bibliographies, baseline data on Colombian education have been entered into a broadly comprehensive overview of educational issues. The user sits at the computer and selects a topic by choosing certain key words, say, rural primary mathematics for female dropouts. On the screen appear columns of data pertaining to questions of mathematics achievement scores for young female school leavers. Then by selecting the model simulation mode, it is possible to obtain estimates of change, for example in math achievement scores, if certain other factors were also changed, for example, dropout rates. This kind of "what if" projection, now becoming common in the United States, is still new in LDC educational planning. DANE is teaching the Ministry of Education planning section how to use this tool along with the REDUC abstracts. It will be a beneficial use of educational research materials at the highest levels of government planning and decision making.

Beatriz Molano, Dean of Graduate Studies and Director of the Masters Program Universidad de la Sabana

Sra. Beatriz, before coming to her present position at Sabana University, worked for 17 years at the National Pedagogical University and was well informed regarding REDUC, its products and mode of operation. She has an M.A. degree from the United States and speaks fluent English.

There is a proliferation of small to medium universities (private and predominately Catholic) clustered in the vicinity of the National Pedagogical University. It is the only public university in this area. She participates in an inter-university association and expressed the view of the association that small isolated cells of academic activity should be eliminated in order to promote more inter-university collaboration. There are historical reasons for a community or religious group wishing to have its own university. They usually pertain to groups having philosophical, religious and political differences. However, cooperation could be possible especially in connection with educational research and post graduate level training.

It appeared to her that few people in higher education really recognized the value of the international network or even knew of the existence of REDUC. However, the percentage in faculties of education is high, and many in post graduate education know of REDUC. The latter group relies heavily on it for instructional purposes.

She said that German Vargas, a CIUP staff member paid by the Ministry of Education, also taught evening courses for Sabana. In this capacity he had acted as the principal link between CIUP and higher education in the country. German has introduced the methods for the production of analytical abstracts as part of the course requirements for all of Sabana's graduate students in education. Every masters student selects a theme or topic for a master's paper. A first step is the consultation of abstracts for pertinent material. Later students who have identified other material relative to their own research actually prepare and submit abstracts according to the official REDUC format for publication as part of the CIUP abstracting activity. Since Vargas began this practice a few years ago, other professors at Sabana have asked Beatriz if they could introduce similar requirements into their courses. At Sabana there are approximately 25 to 30 graduate students (M.A. level only) who enter each semester. The program lasts approximately two years, so that at the present time (taking into consideration students who drop out of

the program) there are between 50 and 75 students and 12 professors, all of whom are active participants in REDUC, through consultation and production of abstracts and other reference material.

Beatriz believes that the most important tangible impact of REDUC has been its substantial influence on the quality of graduate instruction in education faculties. A subsequent meeting with a large group of these graduate students verified her assessment.

She worried about the need for a change in the mental outlook of people, especially highly placed policy makers, concerning the utility of good information. "When people recognize the value of good information they will want it and use it more." She also believed that the serious professional attitude of the CIUP staff had influenced students to take seriously the REDUC materials as one basis for a good graduate education. Many of these students are or will become decision makers who will make better use of these resources.

Martha Lanos Zuloaga, UNICEF--Director of Education

This interview provided an insight into the uses multinational organizations make of REDUC material. The director is Peruvian and has been living in Bogota for a year and a half. When questioned concerning her awareness of REDUC abstracts, she walked to her bookcase and produced virtually the entire set of materials from CIDE/REDUC. She had fewer of the CIUP produced material. She regularly receives CIDE/REDUC materials and evaluates highly their quality and utility, especially in the field of child development, UNICEF's special concern. She did say that some people in her organization wished that the abstracts were shorter, somewhere between the present 400 word size and a mere index listing of essential bibliographical data.

Ms. Zuloaga confirmed that UNICEF intends to work closely with another Colombian Center, CINDE, in the area of early childhood development. She expected to receive assistance from the Van Leer Foundation for this effort but added that UNICEF might be willing to

sponsor the production of abstracts of materials from its own funds. Later she said that UNICEF in collaboration with UNESCO will produce a state-of-the-art paper on child development issues in Latin America. Present and future RAEs will be useful for the comprehensive review of literature they will need.

Other than the obvious impact on her personally and the operations of her office, Ms. Zuloaga was unaware of other impact in the country. She ventured that impact would be hard to measure. It could have an impact but it would require in depth interviews with every decision maker (or presumably a representative sample of them) to gauge. She believed that studying the abstracts is a relatively quick way to gain a broad research based perspective of many current educational issues.

She was surprised to learn that all abstracts are available in Colombia via a computerized network of terminals emanating from DANE. This was something she thought was important, even something UNICEF some day might have interest in sponsoring. In her judgment the DANE capability was not well known in the country.

Guillermo Torres, Professor, Universidad Santo Thomas

Torres was director of CIUP for much of 1983, a relatively pivotal year in the decision to participate in the network. In June of 1983, Torres went to the REDUC conference held in San Jose, Costa Rica. The decision was then made to participate and the first Colombian RAE appeared in December 1983. The following table presents a brief chronology of events and personalities:

<u>CIUP Director</u>	<u>Years</u>	<u>Comments</u>
Clemencia Chiappe	1979-1982	Initiated discussions with CIDE/REDUC
Guillermo Torres	1983	Went to San Jose, decision to produce abstracts
Cristina de Ferro	1984	Published and systematized abstracting process
Pedro Pinilla	1985	Expanded activities to embrace exact sciences.

Torres believed that despite excellent progress made principally by REDUC, the country as a whole still lacks access to systematized knowledge. He affirmed that even today in many Colombian universities there is no good library that adequately serves the interests of researchers. Torres is of the opinion that REDUC's main contribution to date is in higher education. This is because of its location inside a university based research center.

Torres commented on what appears to be an almost annual turnover in CIUP directors. This was a reflection of what occurs throughout the country, even at the ministerial level. The CIUP director is appointed by the Rector of the National Pedagogical University. The number of directors is roughly equal to the number of rectors, who consider the appointment of the CIUP Director as a prize. He was quick to point out that the staff at CIUP has not changed over the years and it was their commitment to REDUC that has guaranteed its stability.

Benjamin Alvarez H., Regional Representative, Social Science Division, IDRC

Benjamin was perhaps the most openly critical of REDUC activities but not in an unkind or unsympathetic way. He is simply skeptical of what is possible to achieve in the short term.

IDRC is convinced that sufficient assistance is available already in the South American cone countries and in Brazil, Colombia and Peru. IDRC will be moving north into Central America and perhaps Cuba where he believes the need for financial assistance in educational and social science research is greater. CIDE has had some small impact in Chile and throughout the region but is still weak, as a research center, in quantitative research methods.

Benjamin's position on REDUC impact is that research results in general are not used by decision makers in Latin America to any appreciable degree. One reason is that research is not a vehicle in Latin America to criticize national policies. This is done verbally, through newspapers, and in classrooms. Research and researchers have too fragile a base to conduct explicitly evaluative research of current government education policy. As a consequence, decision makers take little note of research findings, in abstract or any other form. He believes that most policy makers would not read research abstracts even if placed squarely on their desks.

He believes changes in utilization will come but slowly. A tradition of good research and reliable comprehensive dissemination will create in turn a tradition of reliance upon research for critical information. This will not happen overnight. IDRC will continue to help prepare social position papers for education in Latin America, and will stress the presentation of information in creative ways.

#### **Gabriel Betancur Mejia, Twice Former Minister of Education**

Betancur is probably one of the most respected general educational thinkers in Latin America; a man with formidable credentials, and a sweeping command of educational events and involvement in pivotal decisions in educational development, dating from WWII. There is little he does not know about, including fine current detail.

During our two-hour visit, he worked in a fifteen-minute interview with the head of FES (Fundacion Educacion Superior) a private foundation

dealing mostly with higher education in Colombia. The gentleman from FES (Samorano) was seeking Dr. Betancur's endorsement of a community education program for rural Colombian communities. During the course of their conversation, it came out that FES had consulted the REDUC collection at the UPN for everything pertaining to community education. They had found a substantial number of helpful studies.

Dr. Betancur is a supporter of educational research in general and the dissemination of research materials. He understands REDUC, knows its problems and prospects. He believes remarkable progress has been made in a very short time. He has a grand perspective of development processes. It would not be wrong to say that REDUC will ultimately prove to be the principal motivational force behind a change to the "technification" of education in the entire region. By this he means the reliance on the part of policy makers at all levels on information based on fact rather than on descriptive and political factors.

Hernando Bernal Alarcon, Director General ICFES

Sr. Hernando interrupted an already full day to talk to me for over an hour. I found him friendly, helpful and insightful. He told me the full interpretation of the acronym REDUC. He said that he did not receive regularly and personally the materials but that the ICFES library had them. He had never consulted them but he believed that the people in his planning office consulted them regularly. He said he would ask them.

Sr. Bernal discussed investment alternatives in Latin American education. "We have money for buildings and salaries. What we need and cannot easily get is good information and more research."

Students, Universidad de la Sabana

A meeting was held with graduate students at the Sabana University. We discussed a variety of research issues but focused chiefly on their use of analytical abstracts and the production of abstracts as an integral

part of their graduate instruction. The table belows lists some of them, their positions and thesis topics:

<u>Name</u>	<u>Position</u>	<u>Thesis Topic</u>
Elso Marino Esobar Lombrano	Professor of Social Science in Small District College	Diversified secondary education
M. De Carmen Malaver P.	Secondary School Biology Teacher	Relation of family background to self- learning and cognitive development
Elvira Abril Nino	Academic Coord. of District College	Ethnographic study of automatic grade promotion
Abel Thuiran Nunez	University Professor of Philosophy	Programmed instruction and education technology
Blanca Cecilia	Academic Coordinator and Professor of Physics	Relation among language and achievement
Miriam Parral	University Professor of Nursing	Distance learning for for nurses
M. Del Cisto Lamora M.	Elementary Teacher	Role of administrator in student counseling
Flora Stella Sierra M.	Elementary Adminis- trator	Modern myths of mass media
Valiscola Rueda Fagos	Planner, Ministry of Education	How to use research in national planning

The students were not different from those one would encounter at a U.S. university. They study in the evening, represent a broad range of need for a higher education experience. They thought they had done as thorough a literature review as the resources available to them had permitted. They praised their teacher, German Vargas, and his insistence on their use of REDUC materials. They believed that through consulting an international source of current research, they were prepared to draw substantiated conclusions, and make correct decisions and recommendations.

### 3. Impact of Utilization

a. Do the Materials Utilized Improve Operations of Decision Makers, Academicians and field practitioner?

#### (1) Decision Makers

The most persuasive evidence comes from individuals rather far down the decision maker continuum. There was little evidence that the current Minister of Education or others highly placed in the current Ministry were much influenced by REDUC materials. They are in office for short periods of time (ministers have been averaging about one year each in Colombia). They are politicians and appointed for reasons having little to do with technical qualifications.

Nevertheless there is a level at which Colombian "decision makers" are using REDUC materials and thereby improving the quality of decisions. These individuals are to be found at the district and building level -- school principals and administrators at county or sub-district levels. These are educational professionals, not educational politicians. There are a growing number of them at the master's level who are systematically exposed to REDUC materials, like what they see and seek the original research reports. They said, in our interviews, that it makes a difference to them to know that in Paraguay an automatic grade promotion program was implemented and evaluated with such results, or that in rural Brazil improvement of teachers' salaries was found to have a systematic relationship with teachers' attendance in the classroom. In other words, these people, administrators on the firing line, want this information and profit from it. Currently, the only way they can get it is by enrolling in graduate courses. The Ministry of Education should try to systematically make this information available to them. The model for this in the United States was the Midwest Administration Center at the University of Chicago's famed Department of Education. For many years that Center published for consumption by building principals and school superintendents a short, pithy summary of pertinent research with which they called the "Administrator's Notebook."

## (2) Academicians

There are two groups of academicians who use REDUC materials. The first is academic administrators. The second is academic researchers, many of whom are not located inside universities. The first group is not too large, but growing, and is located principally in major cities where advanced training in education is offered. Even undergraduate teacher training curricula is beginning to include systematic exposure to the analytical abstracts. It will soon be mandatory at the UPN and other teacher preparation institutions are sure to follow suit. In the case of such people, the abstracts cannot be said so much to have improve the decision as to be the subject of decisions.

Researchers make decisions and important ones. What they choose as the focus of research can be influenced by the quality of source information available. The selection of the topic is the first and perhaps most important decision the researcher makes since it is obvious that nothing is written about topics unselected. It is obvious that in Colombia as in the United States and elsewhere, when researchers come across a stimulating piece of work, there is a tendency for the researcher to replicate the study in his/her own setting. Will it work here? Adaptations occur but the idea of replication is fundamental in science. Thus, important decisions are being made by the Colombian educational research community. We talked with several such people who undertook research projects largely as a consequence of having read about a similar project reported elsewhere in Latin America.

## (3) Field Practitioners

It was found that teachers and low level administrators who were taking graduate work needed to be familiar with research abstracts. They spoke with fondness for the experience of having been exposed to the world of research in education. Nevertheless, the primary benefit they derived was in the preparation of their own "secondary" research papers. It will be some time before the state of in-service teacher education benefits

systematically from the research derived REDUC materials. On the other hand, it will be a comparatively shorter time before pre-service education is thus exposed. That is beginning to happen already in Bogota and will no doubt spread as quickly as the materials become widely available in other teacher preparation institutions.

b. Are There Unanticipated Improvements in the Operations of Users Due to the Materials?

The only unanticipated consequence discovered was the presentation of a paper based in part on the REDUC/Colombian experience by Ingrid Muller de Ceballos at the UNESCO meeting of experts in educational documentation in Geneva, May 20-24, 1985.

c. Are There Negative Consequences as a Result of Utilization or Non-utilization?

There are usually negative consequences of the non use of good information. Good information makes economic sense. People and organizations plan more rationally to optimize resources available to them when they possess good information. Specific negative consequences were not observed in the course of the investigation.

d. Statistics Pertaining to Participation and Use

At least one seminar in the use and production of research abstracts and other research documentation is taught each semester at UPN by the documentalist, Ingrid Muller Ceballos.

## C. Costa Rica (CEMIE)

### 1. Management

#### a. Methods

(1) The names and titles of all individuals interviewed are noted in the section entitled "Utilization-Focus on the User."

(2) In addition to reviewing all REDUC materials, a considerable number of CEMIE documents, including research reports, planning documents, state-of-the-art papers were examined. Also mailing lists, correspondence requesting assistance or, in several cases, technical assistance or training which had been provided were reviewed. The materials produced were of a quality comparable to that produced at REDUC headquarters.

(3) It was impossible in the case of CEMIE/REDUC to append all of the documents supplied which demonstrate productivity and utilization. Annex ii contains a sample of the more important ones.

Zaida Sanchez, who works full time in CEMIE, is assisted by Anna Maria Achio, who works 1/2 time. The production of material, typing, binding, etc. is done by contract with REDUC funds.

The evaluator's principal contact with the Ministry outside CEMIE/REDUC was through Srs. Marta Munoz Mora from the Ministry's International Affairs office. She is an important link in the chain of command. She was a supporter of REDUC and spoke of its importance to the Ministry.

#### b. Information Flow to User

(1) The organization of the Ministry of which CEMIE is part is:

Minister

Eugenio Rodríguez Vega

---

Vice Minister

Ovidio Soto

---

Office of International Affairs

Marta Muñoz Mora

---

Director CEMIE

María Eugenia Paniagua

---

Director REDUC

Zaida Sánchez Moya

---

Although an integral program of the Ministry and of CEMIE, most of the burden of REDUC rested with Zaida and her half-time assistant.

## (2) Staff Training

Zaida has broad training appropriate for the many facets of her assignment. However, she is not well trained either in library of information science nor as an educational researcher. She is self taught in both areas and further training under the project is not recommended. However, short-term training in computerization is suggested for the new system scheduled for 1986.

## (3) Physical Facilities

CEMIE occupies a portion of the fifth floor of the Ministry of Education office building. The Ministry is substandard in terms of physical surroundings. It is an old, dirty, rundown building. CEMIE/-REDUC fairs no better. The facilities are worse than one would expect for Costa Rica and worse even than in countries with more modest educational accomplishments. REDUC, incidentally, operates in one room big enough only for two desks, a typewriter (which is not working), two filing cabinets, and a bookshelf which houses the REDUC collection.

### d. Computerization

CEMIE/REDUC is a prime candidate for a micro computer. They need it and are ready for it. It will make a substantial difference to them. The modest investment represented by an MS-DOS machine and associated peripherals and software would be quickly repaid in increased productivity. Given the small likelihood of increased staff, it would make good sense to place a machine there which will have the effect of multiplying their substantial effort.

Final negotiations for computer equipment with REDUC were contemplated. Mailing list software should be included early-on. By main-

taining a carefully constructed and frequently reviewed mailing list, a better distribution of REDUC materials will result.

e. Support to CEMIE/REDUC from CIDE/REDUC

(1) Financial Procedures

A frank and cordial meeting was held with the REDUC accountant, Sr. Mario Campos Solera. The following records were reviewed: (1) a daily expenditures log; (2) a budget plan against which all expenditures are registered on a monthly basis thus permitting at a glance analysis of expenditures against committed funds in all budget categories; and, (3) monthly bank statements.

All money is deposited in either a dollar account (Bank of Costa Rica), maintained in order to receive transfers from Chile; or in Colones (also Bank of Costa Rica) in order to handle routine local currency program expenses. Dollar transfers are handled at the Bank of Costa Rica using the official exchange rates. They wait until money is needed to make the transfer from the dollar account.

Three signatures are authorized for the checking accounts, of which the accountant is a required one and one other signature from either the Director of CEMIE or the Director of International Affairs. Zaida cannot sign but prepares letters requesting payment be made.

CEMIE operates on budget that is divided between Ministry (41.6%) and foreign donor contribution (58.4%). The Ministry's portion is US\$61,000 (providing for the salary of the Director and one researcher, two research assistants, two secretaries, and the physical space. The foreign donor contributions in 1985 were as follows: OEA (\$50,000), UNESCO (\$15,000), and REDUC (\$15,500). The REDUC budget represents 10.6% of the total CEMIE budget and 18.1% of the foreign contribution to CEMIE.

## (2) General Impressions

This is a successful enterprise. The accomplishments of CEMIE/REDUC can be summarized under the following headings:

- o Coordination of educational research at the national level.
- o Plan and conduct national meetings of educational researchers.
- o Promote the utilization of REDUC services among all levels of educators in Costa Rica.
- o Plan and coordinate the production of state-of-the-art reviews.
- o Provide initial leadership to the emerging Central American Network of Educational Information.
- o Training in information management to university students and faculty, librarians, and government officials throughout the country.

### 2. Utilization--Focus on the User

#### a. Martha Porras, Researcher--CEMIE

The purpose of the interview with Sra. Porras was to discover something of the work and routine of CEMIE and the place of REDUC in that organization. Martha Porras, who has a M.A. from the University of Kansas, appeared to have a reasonable grasp of research methods and a firm research agenda for her organization. She described CEMIE/REDUC as an energetic and self-confident organization -- small but disproportionately influential. Zaida Sanchez, she said, is well known and respected. She said that the prestige and influence that CEMIE/REDUC enjoys throughout the country is largely the consequence of Zaida's travel and constant pushing of CEMIE/REDUC. She said Zaida is active in research and that the two of them cooperate on numerous projects.

b. Miriam Conejo, Information and Documentation Center--  
Ministry of Education

The REDUC materials were all present. Claims that the microfiche and readers were used frequently by national and international visitors were subsequently verified. Despite its unkempt appearance and rag tag organization, this is probably the most complete collection of materials of interest to educational research in the country and it is used. Moreover, letters were seen from ERIC (USA) and a West German research institute requesting materials.

c. Maria Eugenia Vargas, Researcher and Coordinator of Quality Control and Continuity Section

CEMIE is not the only and really not even the principal research organization in the Ministry. In the Planning Office, there is a specific research unit carrying out studies of a very applied type on topics identified as Ministry interests. By background Maria Eugenio Vargas is a philologist and is working on a Master's degree at the University of Costa Rica in literature.

Sra. Maria Eugenia explained that CEMIE is separate in two important respects. First, it has its own funding, and, second, it has distinctly international (Central American) interests. Because of this CEMIE is free to enter into research projects on a much broader range of topics than is possible for her particular unit.

Maria Eugenia was aware of all aspects of CEMIE and REDUC, uses their materials frequently and to good effect. Information of this quality in Costa Rica is hard to find and she felt that such an agency in the ministry itself was not only useful but critical to their ability to keep abreast of important developments from Latin America. She was convinced that more people in the country should know about REDUC than even the large number who presently do. She was concerned about that group of people we have called in the evaluation report "practitioners".

She had strong and generally positive views of the work of REDUC. She has worked closely with CEMIE personnel. Her and other MOE officials' access to them and to REDUC materials is easy and frequent. She judged REDUC abstracts and state-of-the-art papers very useful. She repeated that good research material in Spanish language was very hard to find in Costa Rica. Specifically, she had interest in classroom behavior of students and teachers. She said that studies conducted at the classroom level were rare and that little formal knowledge and information on related topics was to be found. She believed that knowledge of studies done elsewhere on that topic would be of great help to her but she had access primarily to the abstracts from Costa Rica and not throughout the rest of the region. She concluded by stressing that there was little money for them to do research at the Ministry and practically no money to add systematically to their library holdings, making CEMIE/REDUC all the more valuable to them.

She said that there were few master's programs in educational research per se. The closest was in Guatemala but that for some reason the Costa Rican government would not accept the master's program from Guatemala. She claimed the salary scale did not reward people with masters or doctors degrees in education. The few people in the Ministry, she claimed, who have advanced degrees have remained for purely personal reasons. University work was different, however, providing incentives for advanced study.

She said that the CEMIE abstracts were well written and in a useful format. The language and presentation were clear. She was not certain as to their use by people outside the research field. Her view was that top educational authorities in the country are primarily politicians and work in political contexts. They visit the Assembly, they argue for support. Costa Rican educational administrators, she felt, were not technocrats and not appointed because they are technically qualified. For these reasons she did not believe that REDUC was well known among the top stratum of education leadership.

d. Maria Eugenia Denga de Vargas, Former Minister of Education  
(four years)

One of the most respected members of Costa Rican education circles, Maria Eugenia is also a member of the Board of Directors of REDUC and was in attendance at the Santiago conference. She offered a positive evaluation of REDUC efforts.

She said that early in her administration she had pressed for a permanent agency in Costa Rica for the express purpose of providing the Ministry with research-based information. The World Bank was approached for a loan to establish such an agency, and, although a mission was sent to investigate the possibility, a loan for this purpose was not approved.

Maria Eugenia spoke strongly in favor of the literature reviews (state-of-the-art) giving special mention to two: one on the economics of education in Costa Rica and another concerning the increasingly important issue of teacher absences from school. The latter issue concerned a national health policy guaranteeing salary to incapacitated teachers. It was alleged that teachers, in collaboration with dishonest medical doctors, feign illness in order to collect compensation unfairly. She said that Zaida had begun to do some investigation of this problem.

There was apparently insufficient contact with the educational research unit at the University of Costa Rica. She suggested visits to researchers there.

CEMIE came into existence as an international organ within the Ministry but funded in part by OAS. It was intended to conduct international studies on or in collaboration with other countries. As the Ministry already had its own small research unit for domestic studies, CEMIE was to concentrate on broader themes and to seek international cooperation. Initially, CEMIE was physically located outside of the Ministry. Its move to within the Ministry proper was an attempt to tie its products more closely to Ministry operations.

Zaida is highly regarded and were she to leave REDUC for any reason, it might be necessary to consider its relocation to the University of Costa Rica. Maria Eugenia spoke enthusiastically of IMEC, the education research center at the University.

We talked at some length concerning the quality of research materials currently produced in Costa Rica. Maria Eugenia believed that substantial progress had been made in quality improvement over the past decade. Still, there is a master's degree offered in only one education field in Costa Rica, adult education. She said that a person with a master's degree would expect to earn 500 colones a month more than the person without that degree. She thought it unlikely that in the entire country there were more than ten holders of doctoral degrees in education.

Finally, her conclusion was that good information is fundamental for all administrative activity. As such, this project made good sense for government support and support of external development assistance organizations. "It may not be the only way of helping, but for A.I.D., I cannot think of a better one." Her view was that infrastructure investments were relatively unimportant for outside agency support. She was clearly more concerned with quality issues and for this, she maintained, intellectual activity was the right path for the present moment.

e. Maria Eugenia Paniagua, Director, CEMIE

Maria Eugenia is the relatively new (one year) Director of CEMIE and obviously has been able to infuse the organization with optimism. She appears well organized, is vigorously energetic and a supporter of REDUC operations.

While explicitly international in emphasis, the CEMIE director shows some reluctance to deal in-house with foreign educational research experts. From 1972 to 1984, CEMIE had in continuous residence an international (non Costa Rican) expert sponsored by OAS. The Center had experts from Uruguay, Guatemala and Argentina. These individuals had freedom to conduct research of their choosing and generally this bore little relation

to Ministry priorities. Finally, last year OAS sponsorship of resident experts was eliminated. CEMIE was designated an international center for Central America dealing with educational research issues in Panama, Nicaragua, El Salvador, Honduras, Guatemala and, of course, Costa Rica. Research projects are funded internationally, with leadership coming from CEMIE, Maria Eugenia Paniagua was, at that time, named as Director. She had previously (3 years) been in the planning section of the Ministry, employed as an educational researcher.

CEMIE has 16 projects, of which REDUC, as it is international, is considered one. It is a very important one, even central to the others. Indeed, it became clear that through the regional activities of CEMIE, REDUC could easily play a key role in coordinating the production and dissemination of research materials in Central America.

f. Roberto Ontoniel Castellanos, Coordinator, Department of Research Evaluation in Education, Ministry of Education -- El Salvador

The evaluator was presented with the unanticipated opportunity of speaking with a Ministry of Education official from a neighboring country. Sr. Castellanos, a Salvadoran, was in San Jose at the invitation of CEMIE to participate in a seminar being offered in the center on the topic of research on school curriculum. He was taking advantage of being in CEMIE to speak with Zaida. He related that he regularly receives the abstracts and that whenever they begin any research project, they consult them for pertinent literature.

He said that there had never been a meeting of educational researchers in El Salvador. While there was some educational research in the area, it was widely dispersed with no coordination. Most Salvadoran researchers were trained at the University del Valle in Guatemala.

g. Benedicto, Director, Department of Planning and Projects,  
Ministry of Education

The material below represents direct "translated" quotation of the interview session. Mr. Benedicto was totally supportive of the REDUC effort and so overwhelmingly convinced of the utility of REDUC products that his views are presented without comment.

In this department we are very systematic in our use of REDUC materials. Before embarking upon any new planning exercise, we always consult relevant research literature, and in the case of Costa Rica, that means REDUC located in this very building. Our working groups do not have sufficient time to conduct their own research. They rely heavily and to good effect upon REDUC materials. Similarly, the research products resulting from the international initiatives of CEMIE are of substantial utility to us. It is a good source of information for the planning function of the Ministry of Education.

In May, we will be beginning new development activity in the Ministry. In preparation for this activity, we will be relying heavily upon REDUC, especially the RAE. References regarding curricular development, school construction, teacher training will all be of great assistance to us in this endeavor. We are probably the principal users of this material in the country. Outside of my area, there are others in the Ministry who also use REDUC material. The utilization inside the Ministry has been very good.

I have always told the Minister that for several reasons our externally funded projects will produce good and valuable information for us but that we ourselves could add to this good effect by the training of librarians who are skilled in the management of information. In my view, we should compliment the REDUC production with the training of people, particularly librarians, whose work would multiply the effect of good information throughout the country. These people, knowing the value of the abstracts, could help spread knowledge.

Also I want to mention the value of the "state-of-the-art" papers. One of them concerned "one-teacher-schools". This is an important topic for us, especially in our rural area. While we cannot hope to eliminate the problem entirely, we can learn how others have dealt with it so that students in such schools do not suffer bad consequences of their schooling experience.

h. Jesus Ugalde, Director, Department of Teacher Education, University of Costa Rica

Sr. Ugalde has a Harvard M.A. in education and was one of the most competent and professional educational authorities met in the country. Teacher education is one of four divisions in the Faculty of Education. In addition to San Jose, the department has regional centers throughout the country.

The teacher education program is basically a bachelor's (four year) program in which the first year is a general year, concentrated in the humanities. The last three years are devoted to a speciality: curricula, pre-school, sciences, physical education, mathematics, counseling or administration. The "licenciatura" is a one or two-year program following the bachelors. The "pos-grado" (graduate) program leading to a magister (masters) degree is typically one or two years depending on field and background of the candidate. There are three graduate programs: adult education, administration, rehabilitation (Special Education). There are no doctorates in education in the country. Most people seeking this degree go to the USA.

Although his program has no formal ties with REDUC or Zaida, he had all REDUC publications on a shelf next to this desk, was extremely knowledgeable about CEMIE and REDUC and expressed strong, informed views. He made it clear that REDUC was in the Ministry and, although they are a public university, they are autonomous. He said that the Minister has a seat on the University Council but never attends meetings. REDUC is

physically and ideologically separate from the University. Zaida, he said, comes frequently and seeks information regarding research and works with students.

Sr. Ugalde's view of the network is that it has its greatest effects working inside the Ministry, through its regional activities, and in the role of secretary of the national commission of educational researchers. He had total knowledge of REDUC and its materials. He related that his department and other education departments at the University sent their research reports to REDUC for abstracting.

The only suggestions he had for REDUC was that Zaida might seek additional training in librarianship. He would like to see more and better explanations directly to University faculty on how to use materials as a research tool, their value, content and international coverage. He also spoke highly of the state-of-the-art papers.

He spoke well of the CEMIE investigators but offered his view that in general they are not as well qualified as university researchers. As expected, there was also a difference in emphasis with the Ministry having a more applied focus.

Sr. Ugalde was asked whether university researchers were free to conduct research for the purpose of criticizing government policies and programs. He responded that in Costa Rica in recent years there have been many studies of government projects. The Ministry at times will ask the University to conduct studies with the thought of influencing government policy.

He reported a specific instance in which REDUC materials had been used by him in a research or policy situation. He served as coordinator on national commission for the improvement of education and the commission made frequent use of REDUC abstracts.

i. Juan Esquivel, Director IIMEC, Research Institute for the Improvement of Costa Rican Education

Juan Esquivel represents the top level research category of prospective users of REDUC materials. He is known as one of the best researchers and part of an elite research group.

He was concerned about the quantity of abstracts negatively impacting because of their quality. When abstracts are made of all materials there is no way in which the appearance of a work in an abstract publication can be construed as making any kind of qualitative statement. In his opinion, only 20% of the abstracted material represents quality research work. Dr. Esquivel suggested that it would be a good idea to have a special edition of the RAE devoted to high quality research material.

The work of REDUC is invaluable to educational researchers in Costa Rica. There are four researchers in his center, paid by the Ministry. All need access to current research literature in their fields of interest. While RAE volumes are an integral part of their preliminary research activity, they do not have such ready access to other Latin American materials. While it is true that these are available at the Ministry on microfiche, it is not convenient and hard copies are difficult to produce and expensive. A computerized system could greatly facilitate their access to research information produced outside Costa Rica.

j. Rolando Berto--Administration of University of Costa Rica, and Rolando Pinto--Visiting Professor in Teacher Education Department

These two gentlemen were recommended as representing excellence in research, university teaching and academic planning. They were interviewed together. They used the analytical abstracts at the time at which students begin to move close to the selection of research topics for theses. Graduate students are systematically and deliberately exposed to REDUC materials. Students have become so accustomed to relying on the abstracts that they now justify the relevance or currency of a topic to

national educational priorities by referring to its presence in significant numbers of abstracts.

They have also used the abstracts in their personal research. Sr. Pinto (Chilean nationality) is a veteran user of REDUC. In 1976, he conducted a study on Adult Education in Chile. In this as in many subsequent research endeavors, he has relied on REDUC abstracts to advance his understanding of current findings.

Both professors have invited Zaida to make presentations to their students concerning the work and products of REDUC. Typically, when the students visit the CEMIE/REDUC office, they also learn about the Ministry's documentation center.

k. Jose Manuel Arguedas, Principal, Cartago Primary School

Cartago is a town situated about 15 miles north of San Jose. The primary school is large with about 1,700 students. The interview with the principal of the school was an excellent opportunity to speak with a field practitioner away from the capital.

Sr. Arguedas was introduced to REDUC when he was doing graduate work at the University of Costa Rica. Different materials were of great assistance to him in the preparation of his own thesis research on the history of curriculum development in Costa Rica. He benefited from different viewpoints, analytical and theoretical, among the authors studied. He consulted the microfiche holdings and claimed to have benefited from this effort. "One must put a thesis of this sort in the context of Latin America in general" was his response to a query concerning the real utility of research originating outside his country.

For a more contemporary view of his use of REDUC's products he described a planning model for curriculum development. He said they are using a lot of participant observation in this study, a technique described in the REDUC research material available to them.

He was questioned about the utility of the abstracts and other materials available to him in his capacity as administrator rather than as researcher. He believed that school administrators should not be thought of as merely managerial technicians who blindly follow bureaucratic of procedures. He expressed interest in planning issues, student-teacher interaction, curricular innovations, internal or flow through efficiencies. He expressed the wish that CEMIE would do more research at the classroom level.

1. Bolivar Bolanos, Coordinator, University of Costa Rica, Distance Learning Program

This was a type of Open University. Sr. Bolanos had worked with this program for approximately three years during which time he had consulted closely with Zaida in gathering information about distance learning programs in other countries. He had identified REDUC materials and information on curricular, organizational and technical aspects of distance learning.

There were eight other professors at the University who work with him in planning and research directed at improving the coverage and the quality of instruction provided through this means. They had trained 60 professionals at the University (licenciatura) who worked in the areas of radio, television, testing and evaluation. Others were instructed who worked in 29 tertiary level centers which function as small universities throughout the country. There are roughly 9,150 students currently enrolled in the Open University.

The professors stationed at the satellite centers used REDUC materials for studying and hopefully improving different aspects of distance learning. They attempted to answer such questions as: What subjects are best taught and in what way and by whom? What has worked in other countries of the region? What lessons have been learned? What should we avoid?

He expressed the hope that through the conscientious study of research abstracts they could minimize the amount of time spent in their early "start up" phase. They expected to hold down costly errors and false starts down unproductive paths.

Sr. Bolanos was aware of the strengths and limitations of the material coming from REDUC which he studied. He claimed to have visited the Ministry's documentation center on numerous occasions. He would like to see all REDUC materials come to him in printed form rather than receiving only that which originated in Costa Rica.

#### m. Summary of Interviews

This group of individuals represented, by and large, friends of REDUC. They were people who knew the project well and generally supported it because they are direct beneficiaries. A more representative sample of potential users in the three categories we identified, probably would be less enthusiastic about REDUC because they would know it less well and do not perceive its relevance to their individual concerns.

### 3. Impact of Utilization--CEMIE/Costa Rica

a. Do the Materials Utilized Improve Operations of Decision Makers, Academicians and Field Practitioners?

#### (1) Decision Makers

Due to its location inside the public Ministry of Education, CEMIE (and REDUC) enjoys comparatively greater visibility in official government circles than might be the case were it located, say, inside the University of Costa Rica. Compared to CIUP/REDUC in Colombia, the Costa Rican activity enjoys the benefits of official recognition, while the Colombian Center has freer access to students, faculty and other typical academic sources.

As a consequence of this accessibility to government decision makers, the level of awareness and the extent of use of REDUC materials is quite high among this group of people. As to whether their decisions are improved as a consequence of this information is difficult to judge. When asked, to a person they claimed it was so, but definitive proof was hard to produce. Nevertheless, the range of individuals in this category from a former Minister down to primary school principals who said they received REDUC materials, read them and profited thereby is impressive. Indeed, their biggest complaint seems to be that similar (hardcopy) abstracts, indices and state-of-the-art papers produced elsewhere are not available except through microfiche.

### (2) Academicians

It was found that academics in Costa Rica had significant contact with CEMIE/REDUC. There are several reasons for this: (1) Zaida is an unusually active person- she produces a great deal and high on her list of priorities is contact with university personnel; (2) Costa Rica is a comparatively small country with a small population with the result that a little aggressive activity goes a long way; (3) the comparative overall well-being of education in the country frees more people to the utilization of research as a useful planning instrument; and (4) the best researchers in the best research institutes rely heavily on the analytical abstracts.

### (3) Field Practitioners

One area of sharp distinction between Colombia and Costa Rica is in the use of the RAE as a graduate training device. There are very few graduate students in education in Costa Rica. REDUC materials are introduced to students in a variety of ways but not so frequently as was observed in Colombia. Because of this there is not the volume of practitioners being produced who have come to know, value and rely upon the abstracts. There appear to some educational administrators around the country who have done university work in San Jose, and while there, gained

familiarity with REDUC. This area is not as well developed in Costa Rica as in Colombia but should grow as a natural extension of increasing interest.

b. Are There Unanticipated Improvements in the Operation of Users Due to the Materials?

It was surprising to learn of the interest of the El Salvadoran Ministry in CEMIE/REDUC. They received materials, used them and were eager to participate in the network.

c. Are There Negative Consequences as a Result of Utilization of Non-utilization?

None detected.

d. Statistics Pertaining to Participation and Use

During 1985, a number of different training seminars and workshops were held. Among them were:

- o Training seminar for secondary school librarians.
- o Students at the University of Costa Rica on research in education, two seminars. National University, one seminar.
- o National Project on Curriculum Development of Public Ministry of Education (PRONAFOCU). These are regional groups who receive visits from Zaida who teaches them about RAE. The groups consist of elementary and secondary teachers, administrators and supervisors. There were four seminars in 1985.

During 1986, the following have occurred or are planned.

- o Six training seminars for school librarians.

- o Four seminars at the University of Costa Rica.
- o Four seminars for PRONAFOCU.
- o In San Ramon, a private religious group has asked REDUC to train its personnel.

During 1985, approximately 200 people regularly received REDUC materials. During 1986, the same mailing list is being used. Given present resources, it is impossible to expand the list. If plans to sell the abstracts are successful it will be possible to expand the mailing list.

D. Guatemala - CINDEG

Guatemala's national center, CINDEG, is one of the new centers to be established under this project in Central America. REDUC began support to CINDEG in May 1985. The Center has made considerable progress in its first eight months.

CINDEG is part of Guatemala's Universidad Rafael Landivar, a Catholic Jesuit University, which was founded in 1961 and currently has over 6,000 students in a wide variety of academic programs at all university levels.

USAID/Guatemala has been active with CINDEG in establishing the Center. Last year, the Mission, utilizing Project Development and Support funds, signed a cooperative agreement with CINDEG to begin the program. A total of \$12,020 was set aside for equipment, publications, materials, travel, and miscellaneous. This Cooperative Agreement ends on May 31, 1986.

REDUC's 1986 funding for CINDEG will amount to \$13,000 for a variety of research and dissemination activities including the purchase and installation of computer equipment. The details of REDUC funding and USAID activities are in Appendix S.

The Interview and Data Gathering Schedule (Appendix Q), was followed in the Guatemala site visit. Management, utilization, and impact of utilization were reviewed.

1. Management

Our review of the Center's management was conducted by visiting CINDEG facilities and by interviewing key staff. We talked to Arnaldo Escobar, Director (1/2 time); Maria Luisa Escobar de Gomez, Coordinator (1/2 time); and Guillermina Galo de Escobar, University and Project Controller. Incidentally, none of these Escobars are blood relatives.

In conjunction with the interviews we examined project files, book-cases containing CINDEG publications, documents which have been abstracted, press clipping files, and, University accounting records. We found all of these information systems to be well organized and complete.

Both the Director and Coordinator are highly qualified and experienced. It was refreshing to find their high level of interest and dedication. For example, the Coordinator, without remuneration, spent her recent vacation period completing documents which had been promised to REDUC. The current staffing appears adequate but may require additional professional time if activities continue to increase. This could be solved by making the coordinator full time.

Staff training, especially for the Coordinator, has been intensive. Ernesto Schiefelbein, REDUC, spent three full days in Guatemala with the Director and Coordinator in setting up the Center. In addition, Mrs. de Gomez went to Costa Rica for a week of individual training under the direction of Costa Rica's national center (see Appendix S for her schedule of training). Dr. Schiefelbein returned in August 1985 to review progress made and offered more suggestions for improvement. In addition, the Coordinator is providing on-the-job training to the project's contract secretary, Ana Maria Juarez. The training provided to the Center's staff appears to have been very good, especially Schiefelbein's instruction on proper abstract preparation and in establishing a new center.

The office I visited was too small. There would not be room enough for the project's equipment. They plan to move to another office location this month which I visited. It has two large rooms and a reception/-secretarial area and will meet the project's requirements. The Center already has an IBM typewriter, a desk, Xerox machine, typewriter table, two bookcases, three chairs, and two files, all of which were purchased under the USAID project. REDUC will provide a microfiche reader and computer equipment which will fill out project requirements.

CINDEG plans to adopt the computer system proposed by REDUC which is described earlier in this report and in Appendices H, I, and J. Arrangements are underway for the Project Coordinator and Secretary to attend a forty hour IBM computer course in Guatemala City. They also plan to have Andres Claro, REDUC's computer expert, assist them implement the system and provide additional training.

At first, the main uses they expect from the computer will be to facilitate finding information, preparing bibliographies and compiling abstracts. The Coordinator was sure they would find additional uses for the computer after it is installed and they learn to use it.

They plan to budget a fixed amount of project funds to obtain an IBM repair and maintenance contract, which is available in Guatemala City.

The budget line item for supplies will be increased for computer commodities and at our suggestion, the Coordinator will check with IBM to see if a transformer is needed to avoid electrical power surges which could destroy the machine and/or programs.

CINDEG staff felt that REDUC had given very strong support in setting up the Center and that REDUC sends them extensive written documentation in addition to its standard publications. REDUC sent two payments as agreed on time totaling \$10,000 for FY 1985 and \$13,000 is approved for FY 1986. They felt that during the beginning of the project, they were unfamiliar with REDUC and its capabilities but will increase their requests for technical assistance, information, etc.

As part of this exercise, we also reviewed CINDEG's financial procedures and found them to be adequate in accord with standard A.I.D. project accounting procedures. We did not run trial balances or audit the files. The official accounting records are kept in the University Controllers office with the Project Coordinator maintaining an unofficial rough accounting in the project office. Separate ledgers are carried in the University Controller's office for the REDUC and USAID/Guatemala projects. The ledgers are backed up by a voucher system which includes receipts and backup documentation. In a separate file, we reviewed accounting reports to USAID/Guatemala and REDUC. The usual reports, forms, and other documents were clearly in evidence.

The investigator's general impression of the Center was very positive. The training and experience of the staff is outstanding with special skills of each complementing the other. Licenciado Arnoldo is an older respected Guatemalan educator who has taught and worked in high level MOE positions, seems to know most key people in government and private circles, and gives the program status and prestige. Mrs. de Gomez is a conscientious, hard working, younger person who attends to the myriad details of a research project. She is exacting, detailed, and obviously has high professional standards for herself and the products of CINDEG. In a relatively short period (eight months), they have established the Center, produced four good documents, and have future plans which should

benefit the country. The staff has high morale and the level of activity is high. Both the Director and Coordinator have intimate knowledge of the target groups of the project and are not reticent to attempt problem solution. For example, the Project Coordinator agreed to tackle the reporting problems involved in assessing utilization and impact of utilization within the Guatemalan milieu for possible expansion into the entire REDUC network.

## 2. Utilization - Focus on Users

This part of the site visit report will focus on users of CINDEG. First, we worked with Center staff to ascertain their perceptions on how the materials are being utilized. Then, second, we interviewed seven users from the three sub-groups and have reported the results.

After each CINDEG document is published, copies are sent to university authorities; 40 libraries and documentation centers in Guatemala City, 15 state capital university libraries, and 30 educational entities. A return receipt is sent with each document to assure receipt (see Appendix S for a sample receipt).

Up to the date of the site visit, three documents had been distributed and one more was printed and was to be sent out the following week. For 1986, they have planned 100 RAEs in two publications; two bibliographies (1965-1974 and 1975-1986); and, one bibliography of press clippings. They estimate sending out a document every three months.

The Center staff are very positive that the materials are being utilized and that there has been a steady increase in interest by all three user sub-groups. They have many anecdotal stories to recount on usage, but they had not thought about systematizing a procedure to focus on reporting usage and impact. Ms. de Gomez agreed to develop a short questionnaire for follow up to be tried on a pilot basis in Guatemala. If their proposed system appears to work, they will send it to REDUC in Chile for possible incorporation into the entire REDUC network.

It appears most usage is still at the student level and for preparation of theses or dissertations for graduate study by teachers and professors. However, there already has been some usage reported (and verified in our interviews) by decision makers and researchers. Starting this year, it is planned to keep records of visitors and find if the visitor found what he or she needed, have follow up conversations with material recipients, and review materials or documents which were developed using the CINDEG data base. An example of the latter was the Liceo Javier sending CINDEG two masters theses which were based in part on the CINDEG press clipping bibliography.

The Center staff felt that at the inception of the project they had placed too much emphasis on their own University, both in terms of document content and users. I agree with this self criticism but it is only natural to begin with the known. The Director and Coordinator stated that they are taking steps to broaden their coverage, numbers of users, and possible subsequent impacts. A press conference had already been called for the third week in February and a nationwide seminar for educational researchers is scheduled for April 25-26, 1986.

The sample of people for us to interview was representative of the three user sub-groups but was skewed toward the Universidad Rafael Landivar, which was understandable in terms of the Center's newness. Summaries follow of each interview, which was conducted using our Interview and Data Gathering Schedule (see Appendix Q):

a. Marta Lupe Meneses de Javegvi - Supreme Court Justice

Ms. de Javegvi, who formerly was the Director of International Programs, Universidad Rafael Landivar, was at the University and we had a brief interview. I was unable to follow our standard interview format since she was on her way to the Swearing in Ceremony for her new position as a Supreme Court Justice.

We discussed the CINDEG and REDUC program in general terms. She was extremely positive about the program and said it was important to continue

the organization and dissemination of Guatemalan educational research results. Additionally, it was critical to encourage and publish meaningful education investigative materials. It was obvious from our discussion that she was one of the key principals in bringing the CINDEG project to reality in Guatemala.

b. Antonio Gallo, Director of Investigations, Rafael Landivar University

Professor Gallo, a Jesuit priest, is an Italian who has lived in Guatemala for over twenty years. He coordinates all university research and is also responsible for a Guatemalan art production center.

He has received all of the materials through inter office mail and uses them in three ways. First, he utilizes them with undergraduate and graduate students as reference and reading materials. Second, he uses them with other professional researchers and investigators who need educational or research materials. Third, he is incorporating CINDEG reference works into research he is carrying out himself. He referred to and capitalized on CINDEG and REDUC documents for a Guatemalan national study he is conducting on youth values.

Dr. Gallo said the materials meet many of his research needs, especially since this is the first time most important Guatemalan educational research is available easily in one place. He went on to say that CINDEG documents were professionally prepared. He suggested it would be a good idea to consider other disciplines, i.e., sociology, anthropology, the sciences, etc., for inclusion into REDUC-like networks.

It was clear that Dr. Gallo is an influential personality in Guatemalan academic circles and that his enthusiastic endorsement (which he had given) will do much to provide CINDEG with academic credibility and prestige throughout academia. He strongly encouraged the Center Coordinator to expand the national network, publicize the project, and begin seminars and workshops to train investigators in utilization of the network.

c. **María Eugenia Muñoz, University Professor, in Two Major Universities**

Ms. Muñoz teaches education courses in two Guatemalan universities. She became acquainted with CINDEG when she was seeking reference materials for a professional paper she was developing.

She receives CINDEG documents by mail since she requested to be included on their mailing list. She used the bibliography materials to prepare her own thesis and utilizes CINDEG documents with her students as reference and reading materials. Ms. Muñoz related that it is difficult to find current education documentation in Guatemala and she uses CINDEG to ascertain what is currently happening in Guatemalan education.

María Eugenia told us that the quality level of CINDEG work was high and that the abstracts were impartial and professionally executed. It was also evident that many specific educational sub-sectors were being covered. The materials have proved very useful to her and her students because they are on Guatemala, easily accessible, and at a high academic level.

She concluded by suggesting that the center be publicized throughout the country, not many educators and investigators know it exists. She also felt the range of topics or areas covered could be broadened.

d. **Padre Roua Carrizo, Director and Professor Hugo Solorzano, Liceo Javier (High School)**

Ms. de Gomez and the investigator drove across Guatemala City to visit the Liceo Javier, a Catholic high school which has about 1,500 students and a clean well maintained campus. We spent about two hours in the interview.

They have received the last two CINDEG documents which professor Solorzano picked up personally at Rafael Landívar University. Professor

Solorzano has used the materials for a professional paper he was preparing and he related that other teaching staff members plan to visit CINDEG to look for reference materials they need for thesis and personal course work preparation. The CINDEG materials are circulated among faculty members in reading files. Director Carrizo and Solorzano said the institutional usage of the materials has been mainly for informative purposes.

They have both experienced major problems in finding any substantial Guatemalan education research materials until CINDEG. The Center is important and will serve a very important needs in Guatemala.

As suspected prior to beginning this evaluation, the usage of REDUC or CINDEG materials will be limited at the high school level. Nevertheless, it will be important since it will be one of the few mechanisms available in Guatemala whereby teachers and administrators can keep themselves updated on current trends and practices in education.

e. Hector Eliu Cifuentes, Director of Bilingual Education Program, Ministry of Education, Guatemala

We visited Mr. Cifuentes, the Director of Bilingual Education, MOE, in his downtown Guatemala City office. He directs an extensive bilingual education effort which has had USAID/Guatemala support with inputs from Rafael Landivar University. Licenciado Cifuentes also teaches a course at Mariano Galvez University, "Problems in National Education", where they propose solutions to current Guatemalan education problems.

He has received all four Guatemalan CINDEG publications from Ms. de Gomez personally and felt the quantity, variety, and frequency of materials was good. One manner in which he uses the materials is with five master's candidates, all of whom are using the information extensively. They have found many unknown resources and for the first time in Guatemala have the beginnings of a good education data base.

Hector continued to tell us that the level and quality of the materials is excellent and the selection of authors represent a cross

section of the best in Guatemala. The data available could be put to good utilization in the fields of sociology and anthropology. Even though, the materials and recommendations on bilingual education from other Latin American countries do not coincide with GOG bilingual education policies, they read and study them with intense interest.

Mr. Cifuentes had many suggestions to improve the CINDEG and REDUC program. They were:

- o Publicize the project through the press.
- o Prepare a brochure about the project.
- o Have radio and TV announcements at 6:00 or 7:00 p.m.
- o Develop a questionnaire to get feed back from high level officials to measure impact.
- o Develop mechanisms so there is a continual orientation to CINDEG of new individuals coming into Guatemalan educational systems.

f. Licenciado German Chew, Consultant, National Bilingual Project

Mr. Chew is currently working in the National Bilingual project and his prior experiences include: (1) working in the Guatemalan MOE; (2) professorships in various universities; and (3) Director of the Organization of American States Regional Office in Costa Rica. He was involved in the original planning of the REDUC network when he was in Costa Rica.

Professor Chew demonstrated a high interest in CINDEG. He picked up the materials himself at the University and carefully analyzed each one. He noted that he has had a lot of experience writing abstracts.

German said he knew many of the cited authors personally and that his main interest is in new information and ideas. The documents he consider

adequate are used with his graduate students and he also keeps himself current on educational trends through CINDEG.

He was critical of the professional level of some of the documents which had been abstracted. This was especially true of some of the masters' level thesis included, which he felt were weak. However, he said most of the CINDEG work was valuable.

The materials meet his needs but he has to screen them. The bibliographies of press clippings are basic information and have been very useful.

Licenciado Chew had many suggestions to improve the system. The major ones were:

- o Establish better criteria for selecting basic documents to be abstracted.
- o Improve the titling of documents, they are not concise or descriptive enough.
- o Make sure the methodology section of RAE's states the steps the author took. Many CINEG RAE methodology sections are actually descriptions of content.

**g. Frank Fairchild, Chief HRD, USAID/Guatemala**

The evaluator met with Dr. Fairchild at USAID/Guatemala and also had a luncheon with him, the Project Director, and the Project Coordinator at a typical Guatemalan restaurant the last day of the country visit. Frank is enthusiastic about and supportive of the project. The Mission has had a variety of positive professional experiences with Rafael Landivar University.

The Mission has used the materials from CINDEG and plans to use them extensively in any future educational project development. Dr. Fairchild appeared to be satisfied with progress to date and was obviously enjoying a very good working relationship with the CINDEG staff.

### 3. Impact of Utilization

The CINDEG activity has only been in operation eight months and with a three month setting up and training period giving it only five months of possible productive life. It would be premature to attempt a full impact analysis at this stage of project implementation. However, we do have some comments based on our observations.

It appeared that the CINDEG system has already had impact on field practitioners. Students and professors are using the documentation. We also saw the cases where five academicians/investigators were incorporating CINDEG information into their endeavors. We interviewed two decision makers who were already influenced by CINDEG documentation. The big problem in assessing impact was there had been no systematic way established to track it. As we noted above, the CINDEG Coordinator agreed to develop a trail program to initiate such a reporting system.

The amount of impact will depend greatly on who, and how much, they use the network. CINDEG had a press conference planned for late February and their first seminar for 50 educational investigators was scheduled for April 25-26, 1986. They also contemplate increasing publicity and outreach activities to get CINDEG known well throughout Guatemalan education circles. An informative pamphlet is being developed now.

One unanticipated improvement many interviewees expressed was that many heretofore unknown or unrecognized research material was uncovered. Another improvement not expected was the high level of interest in CINDEG and the high expectations Guatemalan educators have for it. No negative consequences were reported as a result of use or non-use of CINDEG services.

We collected the following data from the Center:

<u>Activity</u>	<u>Output</u>	
	<u>Accomplished</u> <u>1985</u>	<u>Planned</u> <u>1986</u>
Seminars/Workshop	--	50 people
People Receiving RAEs	170	200
People Receiving REDUC Indexes	--	--
People Receiving Occasional Documents	--	1,200

The investigator is of the opinion that CINDEG has made excellent progress in its short life. An important aspect of working with CINDEG personnel was their positive and responsive nature in answer to constructive criticism and new ideas. It appears they are on the right track and have programmed a whole series of activities to improve the scope and extension of their services. They readily admitted that their original target group was too limited promised they and will do everything in their power to encompass more key decision makers, especially in the Ministry of Education. CINDEG has started very well and should be encouraged by A.I.D./W, USAID/Guatemala, and REDUC to continue at this or a higher level of productivity.

E. Dominican Republic (CEDIE)

The Centro de Documentacion en Investigacion (CEDIE) is located on the campus of the Universidad Madre y Maestra (UCMM) in the second largest city in the Dominican Republic, Santiago de los Caballeros. The Jesuit University has under 10,000 students and offers a full curriculum and fields of study, many of which lead to advanced degrees. CEDIE forms part of the University's Investigation Center comprised of many disciplines and international projects.

The investigator arrived in Santo Domingo, the capital city, and met with Ms. Toni Christian Wagner, Chief of USAID/EHRD and Mr. Claude Boyd, USAID education contractor for preliminary briefings. CEDIE and USAID/- Santo Domingo have extremely close working relationships and there are continual close professional relationships established. The Mission is fully informed on CEDIE activities and has participated in some of the Center's various programs. Toni and her staff think so highly of the Project Director, Ms. Amarilis Perez de Zapata, that they plan to nominate her for a United States Information Service Visitor Grant. The grant will enable her to visit and work with various educational research and dissemination organizations, including ERIC centers, in the U.S. The evaluator highly endorses the award of such a grant to Ms. de Zapata.

After meeting with USAID, the evaluator left Santo Domingo by small bus for three hours and arrived in Santiago to begin the investigation. Four days were devoted to review in Santiago followed by a return trip to Santo Domingo where one and a half days were spent interviewing and visiting the UCMM Santo Domingo campus. We met with the Project Director, the UCMM Chief Accountant, ten users, and inspected the new CEDIE Branch Center, located in the UCMM Santo Domingo campus library.

Our overall impression of CEDIE was highly positive and it could be considered to be one of the best, or the outstanding center in the network. As the reader will ascertain from the description that follows the Center is more than meeting project objectives, mainly due to the timeless, unselfish dedication, and truly unbelievable energy of the Center Director.

#### 1. Management

In our assessment of CEDIE, we spent over a day working with the Director and observed the other staff members, Mrs. Ana Soledad Hdez de Gonzalez, executive secretary, and Mrs. Lorgia Almente de Jimenez, administrative assistant, going about their duties in a business-like way.

The Center office is located on the third floor of one of main campus buildings. It consists of a small cubicle for the Director and a large reception area for the secretary and administrative assistant. The reception area also has a large table with five chairs for the public to use for document reading. They also share a common conference room immediately outside their office where materials can be read. During my visit, I observed over twenty students using CEDIE reference works. The Center is too small, a common problem throughout the network, but is large enough for everything to fit. However, at first sight, it appears cluttered, but this is due to the large amount of materials packed into a small area. In order to get to CEDIE you go up four separate flights of stairs, turn twice and enter through at least three doors. This maze type of location does not make it easily accessible to users. We strongly urge a move to larger quarters (first floor) which are easily found by users. The branch office in the Santo Domingo UCMM campus is excellent and will be described later.

The investigator reviewed all documentation produced by the Center (see Attachment 11 for samples), yearly annual reports, general files, accounting files in CEDIE and in the UCMM's Controllers office (see Appendix U for samples), microfiche, and microfiche equipment. Everything observed appeared to be in order and well maintained.

a. Personnel

The key person in the Center is Amarilis, who came to the project in 1982 with fifteen years of experience as a university professor. Among other posts, she was faculty chairman of the UCMM Education Department and was in charge of educational mathematics evaluation and investigation. She is a leader, appears to know and have the respect of key Dominican Republic education leaders and practitioners, and has boundless energy and dedication. In addition to the secretary and part time administrative assistant, CEDIE contracts (about \$500.00 U.S. per year) professionals to accomplish specific tasks, e.g., write abstracts.

Most national centers profess that they are understaffed which to some extent is true. However, in the Dominican Republic, because of CEDIE's location away from the Capital where many decision makers are located, the project is understaffed. The Director needs to spend at least two to three working days a week in Santo Domingo which justifies another full-time professional-level person.

b. Training

Ms. de Zapata received two days training from REDUC staff in 1982 and felt she had more in regional seminars and meetings. The secretary completed a 30 hour computer training course for new UCMM IBM equipment and the administrative assistant is enrolled in a 30 hour librarian course to help her prepare better press clipping bibliographies.

The Director identified two future staff training areas in addition to her USIS grant mentioned above. She desired additional training for the secretary and herself to prepare for the REDUC computer system and two more library training modules for the administrative assistant.

c. Computerization

CEDIE will use the REDUC computer system which is adequate for their activities. They also plan to have a direct telephone computer link with their branch in Santo Domingo. Maintenance, service and repair of the new REDUC computer equipment will be handled under UCMM's overall contract with IBM.

d. Support to CEDIE from REDUC Chile

We had a long and candid conversation about REDUC support services to national centers. Incidentally, Amarilis was voted in as a member of the Technical Advisory Committee (the first person from a national center) where she will be able to voice her concerns.

She said there needs to be more negotiation and participation between REDUC and national centers, i.e., they have not changed center directors' salaries in four years. Each year the Center submits a justified budget which either REDUC approves or disapproves with no explanations or discussion. The process seems arbitrary.

Another area of concern is lack of consistency in REDUC supervision which is generally high level. It appears REDUC staff do not pre-plan or coordinate what different REDUC staff members do. For example, some things with prior REDUC approval were countermanded by another REDUC supervisor or there have been cases where two supervisors give the exact opposite instructions. However, she did commend REDUC for sending good documentation in a timely manner for both CEDIE branches. She said once REDUC makes a financial commitment, they meet it on time.

REDUC has helped her in various low-cost extra activities, e.g., travel to other regional conferences. She did point out that some member center staffs did not appreciate REDUC's severe cost consciousness, especially in terms of the hotel quality level REDUC uses for its own conferences and meetings.

#### e. Financial Procedures

Official CEDIE financial records are maintained in the UCMM's Controllers Office. We reviewed financial working files in the CEDIE office and also met with Rosa Munoz, the Chief Accountant for UCMM International Programs, in her office to review the official financial procedures and files. Ms. Munoz explained that CEDIE is accounted for separately with each expense requiring prior approval by the Investigation Center Director (not CEDIE's Director). Then Accounting pays the bills upon presentation of proper documentation. They carry standard Latin American ledgers and utilize a normal backup voucher system. Samples of their financial records and reports appear in Appendix T.

As throughout this evaluation, we did not attempt an audit or run trial balances. We found their accounting system to be adequate and it

appeared to be current. The University has a large and complex computer system in the Accounting Office, but CEDIE records are still maintained in a non-computerized system.

#### f. Overall Impressions

The investigator was amazed at the high level of professional activity taking place in CEDIE. With minimal resources, it was readily apparent that this Center is filling a prior educational void in Dominican education. I was impressed!

The staff is experienced and well trained with clear perspectives of the project's objectives and the target groups to be served. Morale is high and the level of activity exceeds any witnessed in 15 years of Latin American experience.

#### 2. Utilization - Focus on the User

We suggest that the reader review a CEDIE document, "An Innovative Experience", which is in Attachment ii. This work outlines all of the steps CEDIE is taking to make the national network function successfully. In the report one will find:

- o Eight clear objectives
- o A list and descriptions of CEDIE's 30 publications.
- o Descriptions of five public inaugurations to introduce new publications.
- o Speeches by key Dominican personalities about the Network.
- o Descriptions of 275 abstracts.
- o Details on 18 talks given to over 2,800 potential users.

- o Review of CEDIE participation in 23 training activities.
- o Analysis of 636 users of CEDIE materials.

These activities point out many of the reasons why CEDIE is being used and is having impact on national education.

Ms. de Zapata reported that their publications go to libraries, documentation centers, investigation centers, central MOE, seven MOE regional offices, universities, other donors, A.I.D., their Congress, and newspaper publishers. These groups received about six publications which include abstracts, bibliographies, press clipping bibliographies, bulletins, and reports per year.

Amarilis felt that the materials are used in a variety of ways including bibliography searches, post graduate study, reference books, to prepare MOE papers, and to keep current on education. The CEDIE documents are referred to in official publications, i.e., a recent pre school UNICEF study, MOE elementary education projects, etc.

We also found the REDUC/CEDIE system is being used in other non education sectors. We saw two large volumes of abstracts from other fields which were accomplished with CEDIE technical assistance and inputs.

The investigator interviewed ten users and visited the new branch of CEDIE on the UCMM Santo Domingo campus. The interviewees provided a fair cross section of users but were obviously "friendly" to the CEDIE system and UCMM. In the final evaluation scheduled for 1987 a more random sample of users should be incorporated into that study. Interviews were conducted in Santiago and Santo Domingo with each respondent's name, title, institutional affiliation, and physical location designated at the beginning of each sub-section.

a. Dr. Jose Luis Aleman, Director, Investigation Center, UCMM, Santiago, D.R.

Dr. Aleman, a Jesuit educator, is Director of the UCMM's Investigation Center and is CEDIE Director's supervisor. He is responsible for the coordination of UCMM research and investigation. He is an economist and was a personal advisor to the last Minister of Education. It was my understanding he had been in his current post for a short time period.

His office is adjacent to CEDIE and he has full access to everything they have. Dr. Aleman's major concern is that the materials be utilized so the Dominican Republic's severe educational problems get solved on the basis of reliable data with less emphasis on political expediency. He cited a mathematics research project (see next interview, section b.) as a sample of good data usage.

Dr. Aleman went on to say that politicians and higher level MOE and MOPlan officials are not using CEDIE data properly. The Government looks for quick fixes and instant successes and decisions are made accordingly.

Another problematic area in education is the recent trends in D.R. education. Historically there was an equilibrium between public and private (mainly Catholic) education which now has dramatically changed. Massive public education has become a fact of life and is in competition with private institutions. Decisions need to be based more on reliable information, and not on political whims.

He has a very high opinion of Amarilis, whom he feels is the reason that CEDIE is successful. He said the materials get to user and are being used but that in the Dominican Republic actual investigation is weak. The resulting abstracts are well done but are based on questionable base documents. Personally, he uses the bibliographies more than abstracts but admitted to having a bias against abstracts. There is a need to establish better criteria for selection of works to be abstracted, publishing only worthwhile data. In this vain, CEDIE should focus more attention on important current D.R. problems and cultivate and activate decision makers.

Dr. Aleman was more interested in quality and noted that excessive information volume can have negative impacts.

Padre Aleman had many concrete suggestions to possibly improve the national network:

- o review the first four years' effort to see if they omitted any significant studies or findings;
- o increase CEDIE contacts with the D.R. Congress, which is a critical link in Dominican education policy making; and
- o develop a CEDIE Sunday supplement for the popular press.

b. Dr. Eduardo Luna, Investigator, Investigation Center, UCMM, Santiago, D.R.

This was one of the best and most rewarding interviews that the evaluator conducted. Usage and high impact were evident.

Dr. Luna is part of an international math study of 21 countries being conducted by the University of Illinois and the University of New Zealand. They are also working with OISE (The Ontario Canada Institute) and also have three people working in social sciences, mathematics, and physics. He has received a series of four grants from IDRC (Canada), the OISE, UNESCO, and the University of British Columbia for his math research project.

First through eighth grade math programs in 21 countries are being studied in terms of curricula analysis; actual instructional programs; and, teaching methods used in fractions, measurement, geometry, proportions, and ratios. They have used pre and post math achievement tests and are designing a low-cost strategy to improve mathematics achievement.

We reviewed some of his excellent research papers and results. They found some revealing information -- math achievement was the highest in .

Japan, the United States ended up in the lower-middle, and the Dominican Republic came in twenty-first at the absolute bottom. Two underdeveloped African countries with lower GNPs than the D.R. scored higher.

When all of this information was released in the press and on national T.V., the impact was substantial on the public and the GODR. Subsequently, the MOE has been under tremendous pressure to correct the situation.

What does all of this have to do with CEDIE? Dr. Luna began using CEDIE materials in 1982 to identify 15 educational and sociological variables to examine in his study. Some of his uses of REDUC information were to find similar or related studies in LAC and to find Dominican information and statistics.

CEDIE went on to disseminate his study results in abstracts and in CEDIE educational seminars. On April 15, 1985, the study group presented 15 documents to the Minister of Education in a public CEDIE seminar.

Professor Luna felt the CEDIE and REDUC resources are of a large volume, varied, and useful to researchers. He suggested that both CEDIE and REDUC publicize the network more which would lead to wider utilization and more impact. He said this is being done in part in CEDIE's national research meetings.

It was his opinion that CEDIE has filled a research information vacuum and it is now possible to find regional and national education data. He felt Amarilis was the cornerstone of the Dominican network.

c. Licenciado Pedro Pichado, Dean of Students, UCMM,  
Santiago, D.R.

Mr. Pichado uses the materials, which he receives in inter-office mail, directly and indirectly. He encourages his students to use them as references and in thesis preparation. He utilizes CEDIE to keep current

and in the compilation of reports and presentations. For example, recently he prepared an academic paper based on CEDIE documents for an international symposium he attended in Colombia. The paper, which the evaluator examined, discussed the creation of a human resources development center. He felt its contents will affect decision makers at home and in the region.

The materials vary in the quality of the document abstracted not the abstracts themselves, which are good. One side effect he observed was that the system had motivated researchers to produce more articles because they now have a legitimate vehicle available where they can publish.

Finally, he concluded by suggesting that the CEDIE system be computerized for higher efficiency.

d. Professor Pedro Nunez de la Cruz, Escuela Normal Luis Napoleon Nunez de Formacion de Profesores (teacher training school), 9 kilometers from Santiago, D.R.

Professor Nunez de la Cruz teacher at the school founded by and named after his father. They have received all of CEDIE's publications by mail. The documents are stored in the school's library and are also incorporated into classroom instruction. They borrow microfiche and use the school's reader on campus to review research literature from the D.R. and the LAC region. Professors are sending students directly to CEDIE for information and assistance.

CEDIE services are meeting their needs but he suggested making the Center's collection of documents larger. Also CEDIE should be more accessible to the public and less hidden physically.

e. Licenciada Dulce Maria Nunez de Taveras, Head Librarian, UCMM, Santiago, D.R.

Ms. de Zapata and the investigator visited the UCMM library which is housed in a large modern three-story building. It is clean, well

maintained and organized. The library receives five copies of every CEDIE publication. The publications are stored in the library's new Dominican Republic Studies Room, where we saw them in evidence.

CEDIE publications are used in a variety of ways. The press clipping bibliographies and abstracts are used by serious investigators extensively. MOE staff and individuals from other universities come to the Library regularly to access CEDIE documents. For example, the Director of Primary Education Curriculum uses CEDIE documents in the library frequently.

Ms. de Taveras told us the abstracts are well executed but she had not examined the quality of the basic documents. CEDIE conducted an abstract preparation course in the library to improve D.R. abstract quality. From a librarian's point of view the CEDIE services are meeting their needs and they appreciate CEDIE's well organized documentation.

f. Professor Osmundo Feliz, Associate Professor, Education and Psychology Investigation, UCMM, Santiago, D.R.

The professor receives all documentations, and he and his students visit the Center. He has brought his entire class in Educational Psychology to be trained on how to use the Center.

The documentation is utilized for classroom instruction mainly. For example, they found a study from Bolivia which compared teacher personality traits and classroom performance. He recently completed a book - Psychology and Its Application to Life - which was based in part on information he collected from CEDIE.

Osmundo said the documents vary widely in quality and suggested that authors abstract their own research. However, the Center had produced a valuable resource which was doing much to improve access to research and investigation information.

g. Mabel Esfa Espaillet, Social Worker, Director Sociology Work Experience Department, UCMM, Santiago, D.R.

Ms. Espaillet learned about CEDIE in a seminar where Amarilis explained the Center. She does not receive materials but goes there herself for data.

Her Department adopted the CEDIE/REDUC abstract system for use in their own discipline. She brought her classes to the Center for training in abstract preparation. This led to a group of students abstracting, such themes as sex education or early childhood education, as part of their post graduate degree program. These documents will be beneficial to her areas of interest.

They have not been able to use many of the Center's materials but would like to see sociology included in the network.

She suggested that the Center be given more space and that it might operate better as an independent non-governmental or non-university entity.

h. Licenciada Rosario Olivo de Regalado, Coordinator, Colegio de las Americas (private school, K-12), Santiago, D.R.

CEDIE materials are mailed to the Colegio and they have received everything produced. Mrs. de Regalado became acquainted with CEDIE through her thesis advisor, the Director of MOE's Curriculum Division, who suggested she use the Center for some comparative education studies. Afterward, she arranged for Amarilis to make a presentation at one of her university courses.

They do not use the Center directly in the Colegio de las Americas. However, many teachers have become familiar with CEDIE through her and go there for research information for their own post-graduate courses. The Colegio staff members find the Center's services to be quite useful for

their personal study programs and to keep abreast of recent educational events.

She suggested that CEDIE send the materials to more schools, like hers. It would also be beneficial to publicize CEDIE more in the press, on the radio, and on television.

1. Licenciado Juan Porto Gonzales, Director Education, Faculty Education, and Humanities, Universidad Nacional Pedro Henriquez Urena, Santo Domingo, D.R.

The University is twenty years old, has a total enrollment of over 9,000 with 300 in the Education Department. In the last five years, education inscriptions dropped over 600 mainly due to lack of good jobs in the education field. The facility is private and was founded and supported by a group of Dominican industrialists.

All CEDIE materials are mailed to the school. He reviews them and sends them to the library reference room.

In May of 1985 CEDIE conducted a training course on campus on how to properly use and develop CEDIE documents. Students use Center resources for thesis preparations and general reference. He feels there is a high level of this type of usage.

Licenciado Gonzalez told us that the abstracts are excellent and that most current Dominican education research is in the system. They are also incorporating CEDIE works extensively in a radio education project in which the University is participating.

Some of his suggestions for improving the program were:

- o Increase CEDIE's size
- o Publicize the Center more

o Set up a CEDIE document branch in the University's new library

j. Licenciada Miran Diaz Santana, Director, Investigation Department, Planning Division, Ministry of Education, Santo Domingo, D.R.

The Director was a political appointee and will probably not continue in MOE after the Government changes this Summer. She was responsible for MOE investigations and some MOE statistical reports. It was not fair to judge based on a two-hour visit but while the evaluator was in the office, very little substantive activity was taking place - a lot of people at desks filling space.

They use the CEDIE resources in their office but do not readily pass them on to other MOE divisions. Amarilis had to track down about one half of the materials which had been mailed but were misfiled.

The abstracts are used to fill in gaps of MOE data, i.e., private school and university information. They do not reference base documents. She said the quality of the abstracts is high and they fill their needs.

She suggested improving communication between CEDIE and MOE - their relationship is not strong enough. She made another good point - Santiago, where most of CEDIE's activities take place, is too far away from Santo Domingo where the real action is in the Dominican Republic.

k. Visit to UCMM 's Santo Domingo Campus

Amarilis and the evaluator visited UCMM's Santo Domingo Campus, which is a business school created with USAID/Santo Domingo support. The campus, completed last year, is situated on what was a Jesuit monastery, in metropolitan Santo Domingo. The facility is modern, sophisticated (even by U.S. standards), and will offer programs in business leading to the MBA. They also will offer a large variety of short-term business courses to the Dominican private sector.

CEDIE's branch is housed in the University's library where complete sets of CIDE documents and microfiches were inspected. There is a large microfiche reading room where we saw at least five microfiche readers. The Head Librarian showed us the entire school. This A.I.D.-funded educational institution is impressive. We were unable to observe any classroom instruction since it was early afternoon.

### 3. Impact of Utilization

CEDIE, in comparison to other national centers, has documented its materials usage but is still weak in following up on impact on policy making. Granted, this is a more difficult and time consuming task, but it has to be accomplished.

We found the materials improve the operations of acamedicians and practitioners substantially. It was clear from our investigation, that when you have no reliable education data base and then establish one, it has a very positive impact. This was confirmed by our investigation which demonstrated that acamedicians and practitioners are doing more actual research work, depending less on non-Dominican data bases, and have reliable and valuable information accessible.

It was evident that CEDIE needs to focus its attention on follow-up of decision makers use of and policy changes resulting from such usages. We found cases of this, i.e., the math study accomplished by Dr. Luna, but no system for reporting on this aspect of the project was in place.

The Center Director did not anticipate the interest in CEDIE/REDUC from non-education sectors. Examples of these interests are given above. Four interviewees were surprised that the REDUC system had caught on so rapidly and been so successful.

On the negative side of the equation CEDIE had expected far more interest in pre-school education. Actually, there has been little or no interest in this area in the Dominican Republic.

We found CEDIE to be well managed, producing good materials which were being utilized at least by academicians and practitioners. Impact and utilization were demonstrated for these two groups. We felt intuitively that the CEDIE services were used by some decision makers and had some impacts on educational policy making. However, there was insufficient proof available to confirm our intuition. CEDIE and REDUC have to address this problem.

CHAPTER V

PROJECT EVALUATION SUMMARY (PES)

A. Part I - Recommendations

Unclassified  
CLASSIFICATION

PROJECT EVALUATION SUMMARY (PES) - PART I

Report Symbol U-447

1. PROJECT TITLE  LAC Education Information System Network			2. PROJECT NUMBER 598-0635	3. MISSION/AID/W OFFICE LAC/DR/EST
5. KEY PROJECT IMPLEMENTATION DATES			4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY)	
A. First PRO-AG or Equivalent FY <u>85</u>	B. Final Obligation Expected FY <u>87</u>	C. Final Input Delivery FY <u>88</u>	<input checked="" type="checkbox"/> REGULAR EVALUATION <input type="checkbox"/> SPECIAL EVALUATION 6. ESTIMATED PROJECT FUNDING A. Total \$ <u>1,289,517</u> B. U.S. \$ <u>982,568</u>	
			7. PERIOD COVERED BY EVALUATION From (month/yr.) <u>2/5/85</u> To (month/yr.) <u>2/28/86</u> Date of Evaluation Review	

B. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
1. Ensure that all AID financed activities including books, journals, periodicals, conferences, visual media, etc., acknowledge AID co-sponsorship.	P. Cariola, REDUC M. Scymcur, AID	5/31/86
2. REDUC Network should develop a plan for the continuous, systematic and comprehensive evaluation of information dissemination, use and policy impact.	P. Cariola, REDUC	6/30/86
3. REDUC should move quickly to implement the agreement to select a Honduran national center. This then would complete the network.	P. Cariola, REDUC	5/31/86
4. Develop closer working relationships between USAIDs and national centers.	P. Cariola, REDUC M. Seymour, AID	8/30/86
5. AID regional bureaus and the Bureau of Science and Technology should examine the possibility of developing REDUC-type networks in other regions.	AID Bureaus	12/31/86
6. REDUC should add word processing, accounting, and statistical (data analytic) programs to its computer software library.	P. Cariola, REDUC	7/30/86
7. On the occasion of the AID review of this evaluation, REDUC, AID and other donors should meet to discuss and plan for future REDUC activities and financing.	P. Cariola, REDUC M. Seymour, AID	12/31/86

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS			10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT	
<input type="checkbox"/> Project Paper	<input type="checkbox"/> Implementation Plan e.g., CPI Network	<input type="checkbox"/> Other (Specify) _____	A. <input checked="" type="checkbox"/> Continue Project Without Change	
<input type="checkbox"/> Financial Plan	<input type="checkbox"/> PIO/T	_____	B. <input type="checkbox"/> Change Project Design and/or	
<input type="checkbox"/> Logical Framework	<input type="checkbox"/> PIO/C	<input type="checkbox"/> Other (Specify) _____	<input type="checkbox"/> Change Implementation Plan	
<input type="checkbox"/> Project Agreement	<input type="checkbox"/> PIO/P	_____	C. <input type="checkbox"/> Discontinue Project	

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)		12. Mission/AID/W Office Director Approval	
James M. Seymour, LAC/DR/EST Patricio Cariola S.J., Director CIDE/REDUC		Signature _____	
		Typed Name _____	
		Date _____	

B. Part II, Items 13-23

1. Summary (13)

The LAC Education Information Network project (598-0635), which was funded February 5, 1985, is currently being implemented by the LAC Bureau. LOP funding is \$983,000 for three years and the purpose of the project is to build a network of education research and documentation institutions capable of contributing to the solution of problems of educational access and relevance in LAC region.

An interim evaluation was completed on April 15, 1986 by Checchi and Company, under Indefinite Quantity Contract PDC-000-I-00-3082-00, Work Order Number 28, in order to meet the evaluation requirements as set forth in the Project Paper (pp. 26-27). These requirements contained four specific areas of investigation: (1) implementation, (2) field management, (3) utilization, and (4) impact. The evaluation consisted of internal and external components.

The internal evaluation examined the overall network, production of documents, training of personnel, research papers, and the data system. The external evaluation analyzed the operations of four national centers in terms of field management, utilization, and impact of utilization.

The project is ahead of schedule in most aspects. Five of the six centers programmed for A.I.D./RFDUC support have been established and are functioning with the sixth in Honduras scheduled for opening in the first half of 1986. Research documents, abstracts, bibliographies, state of the art papers, and other publications, the training of personnel, and implementation of the data system exceed planned numerical targets (see numbers 17 and 19 of this PES for summaries of data). There is a wide variation in quality of network publications and there is a need to establish better selection methods and criteria to ensure that only top quality research and investigation enters the network. CIDE/REDUC and the national centers addressed these problems in their regional conference and it appears that appropriate steps are being taken.

The evaluation revealed that the coordination of the project is being handled efficiently and professionally by REDUC. The four centers visited are performing in a superior manner, especially when viewed in terms of the limited resources provided by the project. Computerization of the network is on schedule. Headquarters has an appropriate computer system installed and national centers are programmed for computerization this year (1986). The investigators reviewed the computerization of the network in-depth and the contractor's report provides this information in detail.

Part I of this report recommends seven actions to improve the project. The first four recommendations are critical to meeting project objectives and should be implemented with dispatch. For example, if the first recommendation, i.e., that all A.I.D.-financed activities acknowledge A.I.D. co-sponsorship, is not implemented immediately by REDUC, the project's funding should be suspended by A.I.D. until it is effected.

The external evaluation, which consisted of site visits of one week each to four national centers, found each center's field management to be more than adequate. In general, the network does not have a system in place to adequately report usage and impact of usage. The evaluators found significant levels of usage and impact but had to ferret out the information. Recommendation two reflects this concern.

Finally, the investigation revealed international interest in the REDUC system with the Southeast Asia Ministers of Education Organization's research group planning to adopt the REDUC system. Also disciplines other than education are interested in, or have begun, networks similar to CIDE/REDUC.

## 2. Evaluation Methodology (14)

The project paper calls for interim evaluations in December 1985 and in April 1986, a final evaluation is scheduled for June, 1987, corresponding to the termination of the project. This evaluation responds to both

the 1985 and 1986 requirements and meets the evaluation requirements as set forth in the Project Paper (pp. 26-27). The evaluation cost \$42,309 and utilized such methods as site visits, participation in the regional conference in Santiago, Chile, structured interviews, observations, and data analysis. More than ninety people were involved in the evaluation. They included the regional conference participants, REDUC staff, four national center staffs, over 30 individuals interviewed in national centers, USAID staff persons, and A.I.D./W personnel.

The two Principal Investigators assigned by Checchi and Company to this effort were Hunter A. Fitzgerald and Donald B. Holsinger. Their efforts were supplemented during the conference by Noel McGinn, Harvard Representative of the A.I.D./Harvard Basic Research and Implementation for Developing Education Systems Project.

The internal and external components of the evaluations were implemented according to the following plan and methodology:

o INTERNAL EVALUATION

REDUC Centers assisted in gathering evidence to determine the degree to which the project is meeting the objectives as follows:

- o Existence of an operable network of national research and Documentation Centers.
- o Evidence of documentation units producing indices, summaries and bibliographies.
- o Evidence of personnel trained in information management, documentation, and research.
- o Completed research and state-of-the-art papers.
- o Improvement of data entry and retrieval system.

The first focus of the evaluation was a conference held in Santiago, Chile January 27-31 at CIDE. Standardized forms (in Spanish) were sent to all national centers. CIDE summarized and presented the findings to national center representatives at the conference and led a discussion on related problems.

o EXTERNAL EVALUATION

Following the conference, the evaluators visited four of the twelve Regional Centers to gather information relating to field management, utilization, and impact. The four centers selected were Costa Rica, the Dominican Republic, Colombia, and Guatemala. The first two were participants in a preceding project. Immediately following the conference, the evaluators studied the operations of the CIDE headquarters. Subsequently, the investigators visited the national centers for a period of five or more days at each center.

a. Field Management - At CIDE headquarters and at each of the centers, the evaluators gathered information through interview, observation and document review about the management of research and information from CIDE to the Regional Centers; and from the Regional Centers to the three groups of intended users, i.e., MOE decision makers, academicians and field practitioners.

Key concerns were the timeliness and efficiency of delivery of materials to Regional Centers, and the subsequent flow from the Centers to user groups. The following factors, which could affect the flow of information from CIDE through REDUC Centers to users were investigated:

- o Are Regional Centers staffed adequately?
- o Is training provided to staff members?
- o Are physical facilities at the Centers adequate?
- o Do Centers have computers and, if so, how are they utilized?

- o Are adequate financial procedures being used?
  
- b. Utilization - The focus of this aspect of the evaluation was the end user. The evaluators analyzed:
  - o The quantity, variety and frequency of materials reaching the users.
  
  - o How the materials are used.
  
  - o The extent to which the materials meet the needs of users.
  
- c. Impact of Utilization - The focus of this section is the activities of the user. The guiding questions are: do the utilized materials improve the operations of policy makers, academicians and field practitioners and if so, how? Are there unexpected improvements? Are there negative consequences as a result of utilization or non-utilization?

In addition, the spread effect of the project was reviewed.

Major evaluation activities and completion dates were as follows:

Forms sent to 12 REDUC Centers for internal evaluation	December 2, 1985
Team Orientation in A.I.D./W (U.S. members only)	January 24, 1986
Centers completed forms and brought to conference	January 26, 1986
REDUC collected and synthesized forms and conducted evaluation session at Conference	January 29, 1986

Team observed/interviewed  
members at CIDE

February 3-4, 1986

One investigator visited Costa  
Rica and Colombia and the other  
investigator visited Dominican  
Republic and Guatemala.

February 6-20, 1986

As noted above, the evaluation was divided into internal and external phases. The investigators participated in the regional REDUC conference and followed with intensive investigations of CIDE/REDUC headquarters and four national centers. The evaluators developed a "Data Gathering Schedule for Case Studies" which facilitated data collection, met contract requirements, and assured similar study and reporting formats for all centers.

### 3. External Factors (15)

There were no major changes observed in the project setting which would have adverse impacts on the project. The seven important assumptions outlined in the Logical Framework continue to be valid.

### 4. Inputs (16)

Once the Cooperative Agreement was signed, there were no major problems noted with commodities, technical service, training or other inputs as to quality, quantity and timeliness. It should be noted that when the prior project ended, this follow-on activity was not funded immediately. This caused the entire network some administrative problems while they awaited new funds.

## 5. Outputs (17)

A summary table of progress made on outputs as shown in the project paper follows:

### Output Table

<u>LOP Output</u>	<u>Progress To Date</u>
1. 12 centers operating and staffed	11 established 1 planned for 1986
2. 12 centers providing and receiving information	11 functioning 1 planned for 1986
a. Each center produces one bibliography on an education problem	8 completed 4 planned for 1986
b. Each center produces 100 abstracts per year (1,200 total)	3,472 completed in 1985
3. Training	
a. 20 center staff trained per year	12 in 1985
b. Country Seminars. LOP target 1,500 individuals	520 in 1985
4. Publications - state of the art and research studies (6 per country per year) (Total 72 per year)	143 in 1985
5. Eleven units of equipment installed in centers	1 in 1985 10 planned for 1986

The REDUC project is surpassing the quantitative total output planned for the project. However, two problems were noted during the evaluation. First, some centers, especially the newer network members are not producing their expected outputs. CIDE/REDUC is working on this problem. Second, there is concern throughout the network to assure better quality control on what is being published. This area was discussed extensively

during the regional conference and CIDE/REDUC plans to step up its technical assistance efforts in this important area.

## 6. Purpose (18)

The purpose of the project is to build a network of education research institutions capable of contributing to the solution of problems of educational access and relevance in the LAC Region.

The evaluation conducted demonstrates considerable progress toward each End of Project Status (EOPS) condition shown below. Nevertheless, the evaluators were less than satisfied with the network's follow-up methods on finding results on actual usage and impact. Recommendation two, Part I of this PES, reflects this concern. We found significant usage and some impact during our four site visits but REDUC and its national centers are not tracking usage and impact adequately. EOPS conditions 4, 5, and 6 do not have adequate data available yet to fully verify indicators from the logical framework. The figures given are based on the REDUC information available and the investigators findings in four national centers. The figures should be considered incomplete.

### End of Project Status

<u>Verifiable EOPS Indicator</u>	<u>Magnitude</u>
1. Twelve operable Centers	11 in 1985
2. Increased numbers of publications	
a. Number of Abstracts	35% increase in 1985
b. Number of state-of-the-art papers	10% increase in 1985
c. Other research documents	52% increase in 1985
d. Bibliographies	25% increase in 1985
3. Research in education problem areas distributed	42 works verified
4. Data made available to 72 planners/decision makers	130 verified

<u>Verifiable EOPS Indicator (Cont'd)</u>	<u>Magnitude</u>
5. Increased number of planners/decision makers as users	32 verified for 1985
6. Observable policy changes and improvements due to REDUC	Not Available
7. <u>Goal/Sub-Goal (19)</u>	

The program or sector goal of this project is to create equity in the opportunities people in Latin American and Caribbean countries have to improve the quality of their lives. The project paper lists three indicators to verify the goal which are: (1) increase in school enrollments, (2) decrease in primary and secondary school drop out rates, and (3) increased demand and attendance in adult non-formal educations programs. There is a question if the goal is realistic in terms of the size of the project (less than \$1.0 million) and that the project will have a direct causal relationship with the indicators?

Nevertheless, as one reviews all of the data gathered in the evaluation process, it is clear that the project will have positive impacts on Latin American education. As stated above, CIDE/REDUC needs to tighten up its internal data gathering and evaluative systems to improve its reporting of both goal and purpose achievements. The scope of this evaluation did not permit an extensive investigation into other causal factors, general Latin American education statistics and their changes in relation to this project.

8. Beneficiaries (20)

On page 24 of the Project Paper, the expected beneficiaries are discussed. As noted in the outputs section above, the number of individuals participating and benefiting from the project exceeds the amount planned in the project. It was also found that more than 1,000 persons regularly access four abstract journals in the four countries sampled while well over 300 others receive occasional brochures, bulletins, studies and reports. The Project Paper projects that 2,000 people will

receive REDUC indexes showing what is available in the network. This has not happened and, in fact, REDUC indexes are distributed in limited quantities (20 each) to national centers where they are placed in key information and research centers as reference volumes. The investigators could not determine the actual number of users of REDUC Indexes. It is suggested that the reader refer to Tables 1 through 6 in the Interim Evaluation Report for specific detail and statistical breakdowns. These tables contain a wide variety of information on users and beneficiaries.

The obvious benefit from this project is that Latin American educators now have easier access to educational research and investigation which was not available to them prior to the project. Again, REDUC needs to improve its tracking system which monitors usage and impact so as to better measure the benefits of the project. There have already been uses of the outputs of the project and we anticipate increased usage in LDCs in the future.

#### 9. Unplanned Effects (21)

The Southeast Asia Ministers of Education Organization plans to replicate the CIDE/REDUC network project in Southeast Asia which is a very positive indication of the project's effectiveness. CIDE/REDUC staff have had inquiries from African investigators about the network but nothing formal has resulted to date. Another unplanned effect has been the interest in the system from other non-education disciplines to establish national and regional networks. The evaluation identified at least five instances of such interest and two abstracts in other sectors have already been published in the Dominican Republic. The OAS used a format similar to REDUC's to abstract its more recent projects.

Additionally, the REDUC planners, who envisioned the project, did not really expect that such a large number of Latin American countries could agree to work together to accomplish such positive results. This is definitely not the norm in Latin America.

Finally, the willingness of many Latin American governments to share costs was not anticipated. In many countries, the governments or sponsoring institution's support exceeds the A.I.D./REDUC contribution.

10. Lessons Learned (22)

It is possible to change deeply ingrained attitudes about research in a region and in various countries if you have clear objectives, precisely defined tasks, qualified human resources, and adequate funding. It was also learned that you must teach basic good management practices if this type of program is to be successful.

11. Special Comments or Remarks (23)

The complete Interim Evaluation, with Tables 1-6, Appendices A-U, and Attachments i and ii is attached for review and reference.