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Latin American Educational Information and Documentation Network (REDUC): capacity building review

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Introduction

This paper presents an historical review of the Latin American Educational Information and Documentation Network (REDUC) capacity building process. It was contracted by SERI, as part of a group of five papers related to capacity building of educational research and knowledge dissemination in Latin America.

This paper discusses three dimensions of capacity building in REDUC. The first dimension refers to the institutional skills required to produce and exchange information in a network that covers most countries such as REDUC does. These are the information production and networking capacities.

The second dimension refers to REDUC capacities to disseminate information among different users, especially between educational managers and decision-makers. Finally, the third dimension is the impact of REDUC information on educational policy-making. This point will cover some lessons learned from REDUC experience.

1. Production and networking

1.1 From origins to computer age

REDUC's objective is to gather the knowledge generated by educational research for educational policy-makers in Latin America. REDUC was devised at a Latin American educational research centres conference, funded by the Ford Foundation, in 1970 (Cariola, 1992). During

the conference, the centres' directors decided to create a common publication' as well as a mechanism for gathering the documentary information produced by the centres. The Chilean *Centro de Investigación y Desarrollo de la Educación* (CIDE) was designed to create that mechanism, because, inspired by ERIC, CIDE has since 1973 produced a yearly digest of Chilean educational research abstracts, called *Resúmenes Analíticos en Educación* (RAE).

Five years later, at a new meeting of the centres, the RAE format was adopted by all the centres, and a mechanism was established to exchange their production. This initiative was made possible with the support of the International Development Research Centre (IDRC) of Canada.

During the years 1975-90 the number of centres incorporated into the REDUC mechanism increased from eight to 21 (Munizaga, 1989). Centres from all Latin American countries were incorporated .

The CIDE Co-ordinator Centre had three tasks at this stage:

- (a) Find institutions where the REDUC mechanism fitted with the institutional interest. The institution could be the Education Ministry Planning Departments, educational research NGOs or university document centres.
- (b) Involve the national centres in a co-operative design.
- (c) Obtain resources to provide them with the basic equipment and training and minimal contributions to running expenses.

From the beginning, REDUC was established not as a mere exchange of bibliographical references, but as a documentary analysis system. Abstracts were the main production, the cornerstone of an entire building constructed by adding value to information. Several tasks related to the standardisation of abstracts were accomplished: types and lengths of the fields, use of the UNESCO thesaurus for key words, kinds of information that each field must contain, and so on.

In addition, it was necessary to create communication channels for the exchange of RAEs. In all centres a key publication was developed: a national *Resúmenes Analíticos en Educación*, a collection each semester of

1. Later, the *Latin American Educational Research Digest*, semestral published by the Mexican *Centro de Estudios Educativos*.
2. With the exception of Cuba. In this case, document exchange agreements were established.

50 to 80 abstracts. The Co-ordinator Centre published its own resumes including abstracts of Chilean research, and also abstracts of research covering two or more Latin American countries.

The Co-ordinator Centre publication includes up to 200 RAEs by semester. These research studies, filmed and kept in microfiches, began to be distributed to all associated centres.

These tasks were accomplished by a team of five to six persons in the Co-ordinator Centre, and at least two persons in each national centre. The Co-ordinator Centre had a highly qualified professional acting as General Co-ordinator, an information analyst and two secretaries. A CIDE documentalist was also included in the REDUC team.

Several critical issues arise from REDUC's method of work organisation:

- (a) A large number of documents are summarised by the Co-ordinator Centre in comparison with associated centres. This situation derives from the fact that in Chile there are many international organisations devoted to development, education and social sciences'. Studies of the REDUC database (García-Huidobro, Tellez, y Ochoa, 1989), show that this could result in an over-representation of Chilean research.
- (b) At the same time, there is not enough research in smaller and less developed countries to balance the Chilean production, and in major countries such as Mexico and Brazil, national associate centres do not always collect all national production.
- (c) Typically, national centres contracted a woman documentalist to produce RAEs, supervised by a professional who was also in charge of communications with the Co-ordinator Centre and other national centres. Usually, these professionals had some political or institutional influence, and they gave visibility to the REDUC Centre. In some cases, there was only a documentalist in charge of all REDUC operations. In these cases, centres had weak institutional influence and visibility. But at the same time the documentalists were very productive, and a regular flow of information was assured.
- (d) In all Latin America there is a scarcity of research sustained by 'hard data'. There is thus a lack of such research in the REDUC database.
- (e) Even though documents summarised by REDUC are written in different languages (mainly Spanish and Portuguese, but not

exclusively), RAEs are produced only in Spanish. This represents a limitation to dissemination of REDUC information in other regions.

1.2 REDUC and computers: history of an assimilation

From 1975 to 1984, the REDUC network grew in terms of paper, microfiches and ordinary mail. REDUC's age of computers began only in 1985 and was possible only because the Co-ordinator Centre already had a high capacity of resources managed through all Latin American countries.

Until 1982, computers were very expensive for REDUC. A Personal Computer (PC) then cost about US\$5,000 in most Latin American countries. From 1985 to 1990 REDUC developed three projects for technological equipment, with funding by USAID, IDRC and ACDI. At that time, lower computer prices made it feasible to provide each national centre with at least one PC (Claro, 1988).

From 1987-1989 it was very difficult to provide national centres with PCs and printers. Latin America was experiencing the worst economic crisis in history, characterised by inflation that rose two digits monthly in some countries (as in Argentina, Peru and Brazil).

The procedures for funding national centres in US dollars, exchange of national currency and equipment purchase were extremely complicated. For instance, when the moment of purchase came in CIPES Buenos Aires, the initial prices and conditions had changed completely. In Peru, American currency funds enter to fiscal accounts. In return, the state gave the centre devalued national currency after several months delay.

Protectionism and high taxes also caused difficulties. Centres paid US\$5,000 or US\$6,000 for a computer worth US\$3,006 .

Today all associated centres have at least an IBM PC, AT or compatible, with a 20 or 40 MB hard disk, a printer and a microfiche reader device. That is the minimal equipment. There are centres in which REDUC equipment sows the seeds of major technological changes. Some of them, such as Mexico's CEE or Brazil's Carlos Chagas, have developed computer Local Area Networks.

Before the UNESCO MicroIsis documentation program was completed, REDUC had begun to build a database using a different application, called

4. The situation these days is completely different. Equipment is available at lower prices, free trade policies are implemented, and it is possible to buy better computers at only a portion of the cost of a few years back.

Dayflow. In 1990, REDUC migration from the Dayflow program to Microsis was completed. During that year, first versions of the REDUC CD ROM Database were produced. Two associated centres - the Colombian CIUP and the Argentinean UCC - were equipped with CD ROM reader devices. Besides Microsis, the Co-ordinator Centre has a version of the database in hypertext, the only one in Latin America.

Each associate centre has at least two technical assistance visits from the Co-ordinator Centre, and there were two subregional workshops. As a result, all centres have personnel with the skill to manage the REDUC hardware and software. Occasionally, the success of technical assistance and personnel training has worked against the centres, because personnel have been contracted by other institutions that offer better earnings.

Computer technology has resulted not only in increased REDUC capacity for processing and storage information, but also in reductions of operation, production and exchange costs.

Processing RAEs in paper publications and disseminating them among 17 countries was costly: processing and disseminating the information in the form of a floppy disk is cheaper and easier. Also, technology is affecting how REDUC information is disseminated and used, as will be shown in *Section II*

To summarise, REDUC has been strengthened in equipment and training personnel. All centres have a REDUC database; they are also now producing abstracts on computers, and Microsis is widely used. Some critical issues related to technology are:

- (a) Scarcity of training personnel. The REDUC training process gives new skills to personnel. Those skills are highly valued in the labour market, and in some cases, personnel have abandoned REDUC to increase their incomes.
- (b) Scarcity of resources to upgrade equipment. REDUC centres don't usually have the resources to buy new computers or software.
- (c) For these reasons, information technology is not fully utilised at REDUC.

1.3 REDUC's contribution to educational research

Educational research is the cornerstone of all REDUC production. During all these years, REDUC has been deeply engaged in the production of research. To stimulate research, REDUC has sponsored national meetings of educational researchers. Another mechanism has been to encourage

highly qualified researchers to produce information syntheses, particularly 'state-of-the-art' surveys. Outstanding REDUC actions stimulating educational research during **the last four** years were:

(a) *The organisation or sponsoring of 21 Educational Researchers National Seminars.* At least one seminar was organised by each associate centre. At these meetings, university professors and researchers from government and private institutions presented results of their studies. The abstracts of these studies were published in national *Resúmenes Analíticos de Educación* and became part of REDUC collections.

(b) *Production of regional and national state-of-the-art surveys.* Between 1987 and 1991, nine Latin American state-of-the-art surveys were produced. Four of them related to primary education quality, one to decentralisation, another to primary teacher situation, two to science education, pre-schooling and early child education, and the last one to information in the educational field.

Regional state-of-the-art surveys show that it was possible to gather research publications and to review them in a critical manner. So in most countries similar works were achieved at national level. During the project, a total of 39 national state-of-the-art surveys were produced. This allowed the REDUC network to develop 'intelligence' skills, not merely to collect and summarise research, but also to analyse it, adding value to information. State-of-the-art surveys also integrate isolated research, and, to a certain extent, make up for the lack of communication between researchers in Latin America.

(c) *Creation of the Latin American Research Advisory Group (LARRAG).* A high-level committee was convened to decide on the issues and the authors of the nine regional state-of-the-art surveys. The meeting was held in Bogota from September 7 to 9, 1987. It was organised by REDUC and the Research Advisory Group (RRAG) to determine the meaning and characteristics of the work. Also discussed were the issues and possible authors. At the meeting, RRAG members decided to develop a close relationship with REDUC and become a network advisory group. This group, named LARRAG, will contribute to related research and decision-making in Latin America.

(d) *REDUC and the World Conference of Education for All (WCEFA).* REDUC, as Latin American member of RRAG, was invited to participate in WCEFA with the other educational information networks

of RRAG: ERNESA (East and South Africa); SEARRAG (South East Asia); and NORRAG (the North network).

In particular, primary education quality research performed during 1986-89 at CIDE, REDUC's NGO branch, gave REDUC first-hand information for the Latin American preparatory meeting. At this meeting, research findings related to under-privileged children and education quality were presented. Later, they were used by the Conference in the concept 'skills for life'.

Also, a round-table and exhibit showed REDUC operations and services at the Conference (REDUC Project Report, 1991).

1.4 REDUC contribution to communication between researchers and policy-makers

To increase the impact of educational research on policy-making, REDUC has built different mechanisms to contribute to communication between researchers and policy-makers:

- (a) High-level interchange meetings, both national and regional.
- (b) Research for Educational Policy, a training workshop.
- (c) In connection with the above workshops, REDUC has created a new kind of simulation model that includes a friendly in-context interface with databases, called Model Informatics Auxiliary for Decision Making (AMITD in Spanish); and
- (d) Dissemination of databases, microfiches and publications among education ministers in Latin America.

(a) High-level interchange meetings, national and regional

The REDUC Co-ordinator Centre organises or supports high-level interchange meetings. During the last four years, seven Latin American meetings or seminars have been promoted by REDUC:

- In 1987, the LARRAG meeting in Bogota mentioned above was attended by senior government education officers and researchers.
- In 1988, a Latin American Educational Conference organised by CLACSO (Latin America Social Science Council) was convened by REDUC in Santiago de Chile.
- In 1989, 30 representatives of Latin American governments had a REDUC training session at a workshop organised by the Regional Office of UNESCO.

- Also in 1989, REDUC, the Uruguayan associate centre (CIEP) and the World Bank EDI, organised a seminar on teachers' employment and earnings in Montevideo, Uruguay.
- In 1991, REDUC sponsored a Latin American seminar on primary education quality, with the participation of university professors and government officers in Valparaiso and Valdivia, Chile.
- In 1993, a week before the Major Project UNESCO Conference of Education Ministers of Latin America and the Caribbean, REDUC and the Interdisciplinary Program of Research on Education (PIIE) organised a Latin American Educational Research Education meeting which looked at issues relating to the 21st Century, with participation of 30 seniors researchers from the region. This meeting produced an Agenda on educational research, that was presented to ministers a few days later.

REDUC associated centres also organised various interchange meetings. These national meetings were attended by researchers and Education Ministry officers.

Other noteworthy meetings were a seminar on Education and Democracy organised by REDUC/Paraguay Centre (CPES) with the Education Committee of the Paraguayan Congress; another on problems of bilingual education at Centro REDUC/Guatemala (CINDEG); and a third on education and work in the Dominican Republic (CEDIE).

Besides the direct results of meetings, this kind of engagement has additional results. For instance, a result of the Paraguayan meeting was a government contract for CPES to produce background studies for a long-range educational reform; CINDEG in Guatemala has been contracted by USAID and other international institutions to produce information on bilingual educational aims for application in specific educational programs; and the Dominican Centre is playing an important role in the development of a national education plan.

(b) Educational research for policies: a workshop

The Basic Research and Implementation in Developing Education Systems (BRIDGES) project directed by the Harvard Institute for International Development (HIID) was coming to an end in 1992.

The project was an effort to provide research-based information to policy-makers, planners and managers on alternative ways to improve opportunity and quality in developing countries' schools. After five years of

collecting the most important educational research in developing countries, the BRIDGES project held a workshop that synthesised the results. The workshop was designed to train Ministry officers and decision-makers.

The BRIDGES team asked REDUC to translate and to adapt the workshop to the Latin American situation. In doing this, REDUC discovered that workshops were a very effective way to communicate research findings to decision-makers.

The BRIDGES project provides REDUC with all material and modules. Since May 1992, when the first workshop was held in Santiago, five more workshops have been held in different Latin American countries. All of them were extremely well evaluated by participants.

Experience shows that to communicate research is not merely a dissemination function, but an activity that has at least the same importance as producing it. At the same time, there is a visible need for qualified persons to produce information syntheses.

To generate these skills is part of today challenges for REDUC (Loera Armando. Consultative Report, 1991).

(c) Hypertexts, models and game simulation

As part of a workshop, the BRIDGES project developed a simulation game called EPICS. The program simulates policies for increased coverage of primary education in a fictitious Africa-type country called Farziland. When translating and adapting BRIDGES modules, it was necessary to set the program in a Latin American context, and Jose Gonzalez, a mathematician, and Alfredo Rojas, REDUC General Co-ordinator, produced a new version that simulates Chilean conditions.

The REDUC simulation game incorporates a database as part of the game. It is not merely a computer model to simulate different scenarios. There is also a database within the simulation with information concerning the game for players to consult whenever they need to (Gonzalez, 1993).

The simulation game and database interface were generated because an IDRC funded REDUC project (ending in 1990) allowed experience to be gained with hypertext programs. REDUC assimilated the technology and it was used two years later in the incorporation of a database into a simulation game (Gonzalez, 1992).

Both technologies, model simulation games and hypertext, expand REDUC's capacities to offer research results to management and planning personnel.

(d) *Dissemination of databases, microfiches and publications among education ministers in Latin America*

From 1994 to 1996 a total of 61 REDUC databases, microfiche collections and RAE collections will be disseminated among Education Ministers, universities and research centres all over Latin America, as part of an IBD funded project. This will be the major attempt to disseminate educational research. Users and decision-makers will also be trained to use this information.

1.5 REDUC as a consolidated network

Producing RAEs has become part of everyday life at all centres associated with REDUC. This quotidian practice is the basis of REDUC life. Production is guaranteed even without funds provided by the Co-ordinator Centre, as has been demonstrated during the last two years when the network lacked funding.

Centres are also documentation disseminators or consulting database sites. REDUC collects and processes an annual average of 2,000 educational research studies. Each country stores national research publications (an average of 120 to 200 research studies, according to country size) and 800 microfiches of studies and research projects related to the Latin American region.

All countries also receive abstracts of research produced in other countries, and a copy of the complete research is available on request with two or three weeks' delay.

Even if other countries' complete research reports are not immediately available, educational researchers and officials have the *Resúmenes Analíticos de Educación* REDUC abstracts specially designed to give maximum information on the originals.

To summarise, researchers, professors or officials have immediate access to abstracts of all Latin American educational research. They also have direct access to the original issue of any research study produced in their countries, and microfiches of the regional research. They also have delayed access to copies of research studies produced in all other network countries.

1.6 Funding REDUC

It has been a permanent task to maintain a stable flow of funding, both to the Co-ordinator Centre and to the national associated centres.

Contributions from international funding agencies have been decisive (Cariola, 1992). From 1978 to 1993 REDUC received approximately US\$2.5 million. American USAID, Canadian ACDI and IDRC were the most important donors.

During the next three years, REDUC activities will be funded by projects with the Interamerican Development Bank and Bernard Van Leer Foundation worth US\$1.5 million.

REDUC has had two periods without any external funding (1983 to 1984 and 1991 to mid-1993). Activities were reduced to a minimum of abstracts production only, without publication.

The network has survived supported by the national associate institutions. The Co-ordinator Centre has been funded by CIDE, and universities, Educational Ministries and NGOs have supported their own national centres.

There are two points of view in relation to international funding support for REDUC.

The first is to consider REDUC as a recipient of funds to carry on activities that are not critical enough for national government to support, or that cannot be sustained by a weak market.

This situation would end as soon as REDUC could sustain itself with national funding, or by selling information products and services to a strong education information market.

This is the way both REDUC staff and funding agencies have devised the international funding role up to now.

Another point of view is to consider REDUC as a partner in development tasks. This will occur when REDUC products and services are useful not only to individuals, but also to national and international policy-making institutions.

This situation is arising due to activities such as workshops reinforcing teams of national, regional or local policy-makers, or from the dissemination of information for policy design.

It is reasonable to think that in the near future REDUC will be funded by a combination of national projects, market profits and international partnerships.

Even though national demands do not increase substantially, the main task of REDUC Co-ordinator Centre will still be to find funds - that means

to sell projects, ideas and information to the market, agencies or governments.

1.7 REDUC centres: an overview

There are 17 active REDUC centres in Latin American countries. There are two centres in North America, one in Canada and one in the USA. The centres are NGOs, university faculties or Ministries.

Dramatic changes observed in Latin America during the last five years have had a deep impact on some of the REDUC centres. Some of them such as ICASE (at Panamá University) or INIDE (at the Peruvian Educational Ministry) were affected by economic crisis and State reforms. NGOs, such as CEBIAE in Bolivia and CIEP in Uruguay, were an intellectual underground nucleus during periods of dictatorship and they have been affected by the return to democratic rule. They need to find new roles, functions and funds. Some of them are disappearing, and they have been replaced at REDUC. Others are only recently recovering their information-supply capabilities. Seeing how the centres evolve suggests the conclusion that the strength or weakness of the centres is proportional to the strength or weakness of the national educational research field or educational planning institutions.

Argentina

The *Centro de Investigación y Promoción Educativa y Social* (CIPES) in Buenos Aires is an NGO oriented to community and adult education. They have a complete database on Buenos Aires educational research, in particular research by the main Argentinean centres such as FLACSO and the *Universidad de Buenos Aires*.

Universidad Católica de Córdoba (uc) at Córdoba: the REDUC centre is located at the Education faculty. As indicated before, the UCC offers a Ph.D. degree in Education. REDUC's database provides all information needed by students and professors.

In general, REDUC Argentinean centres summarise most of the national research and have strong links with universities, government (national, provincial and municipal), and other research centres.

Bolivia

The *Centro Boliviano de Acción e Investigación Educativas* (CEBIAE) in La Paz is an NGO oriented both to community development and critical educational policy research. It has strong links with teachers unions. During recent years Bolivian NGOs have been adapting to a new situation, characterised by changes in the role and position of unions and social movements. These changes affected CEBIAE's productivity.

Brazil

Fundación Carlos Chagas at Sao Paulo, FCC, is the main private educational research institution in Brazil. It produces about 25 original research studies yearly.

Instituto Nacional de Pesquisas (INSP) in Brasilia is a governmental institute which aims to orientate, co-ordinate and support educational research inside and outside the Brazilian government, especially among universities. Unfortunately, the Brazilian crisis has affected the accomplishment of this role.

In part due to weakness of INEP, and in part to the size of the country and the high number of universities and research centres, it hasn't been possible to establish a national network to collect and summarise all Brazilian educational research. This weakness will be solved during the next two years. FCC is building a national network including the most important Brazilian universities.

Columbia

The *Centro de Investigaciones de la Universidad Pedagógica* (CIUP) is the research centre of the national teacher-training university. Colombia, with Chile, Mexico, Argentina and Brazil, is one of the Latin American countries that produces a major number of educational research efforts. The CIUP REDUC centre has strong links with field individuals and institutions, and the Colombian collection is usually complete.

Costa Rica

The *Centro Multinacional de Investigación Educativa* (CEMIE) is located at the Educational Planning Division of the Ministry of Education in Costa Rica. CEMIE has been one of the best REDUC associate centres.

Although it is a governmental institution, it has strong links with universities and other educational research centres. The Costa Rica collection is complete and regular summaries are produced.

Dominican Republic

The Centro de Documentación e Información Educativa de la Universidad Católica Madre y Maestra (CEDIE) is a high-performance centre. Thanks to the efforts of its chair, the centre has been moving from educational documentation to policy analysis and policy-design support.

Guatemala

The Centro de Información y Documentación Educativa de Guatemala (CINDEG) is also a high-performance centre. Located at a private university, it has strong links with other universities and centres, and usually has complete collections and resumes. Like all Central American countries, with the exception of Costa Rica, the weakness of CINDEG has to do with the scarcity of high-quality research in the country.

Honduras

The Centro de Información y Recursos Educativos (CIRE) is part of the Honduran teacher-training university. It is a very productive associated centre of REDUC, but as with other countries in this area, national research production is weak.

Mexico

Mexico's Centro de Estudios Educativos (CEE) is one of the most traditional private educational research centres in the country. It has high-quality research production, offering services to the Mexican Government, the World Bank and other national and international institutions. It is the only REDUC centre that has organised a national information network, through all Mexico.

Nicaragua

The REDUC centre in Nicaragua is the small documentation centre of the Ministry of Education in Managua. The centre has three virtues. First,

it has survived all political and administrative changes in Nicaragua. Second, it has survived almost without resources. Third, RAE production is regular and complete.

Panama

The *Instituto Centroamericano de Administración y Supervisión de la Educación* (ICASE), located at *Universidad de Panamá*, used to be the most important educational management research and training centre in Central America. Panamá's political and economic crisis provoked the decline of this centre, but from time to time, it still summarises some national research. Panamá research has also been affected by the crisis.

Peru

As in the case of Panamá the Instituto Nacional de Investigación Educativa, (INIDE), a governmental research centre, was affected by the crisis. Fujimori's Peruvian state reform discontinued its operations and ended in 1992. Since then, REDUC has associated with DESCO, one of the most traditional NGOs in Peru. During 1994 DESCO will initiate the collection and summarising of national educational research.

Uruguay

The *Centro de Investigación y Experimentación Pedagógica* (CIEP), an NGO that has been an associated centre for 10 years, stopped its production for two years. At the same time the information services were not public. In 1993 it was replaced by the documentation centre of the Ministry of Education. The centre was to initiate its activities during 1994.

2. Impact and use of REDUC - lessons learnt 1972-1992

From the outset REDUC (or the review of abstracts that preceded it) was not intended as a purely documentary or academic exercise. The idea was always to promote better informed decision-making.

REDUC succeeded in building and updating a database of 20,000 abstracts through a co-operative network of centres in 17 countries.

However, achievements for use by people in decision-making positions, and even by academics, are far more modest. Anyway, the target is there. Here are some lessons we have learnt in attempting to reach this goal.

It is one thing to collect and make information available. A very different thing is to 'dish it out' in a way that is useful to decision-makers in their everyday practice. In this business you may have to work more on the demand side than in the offer. The real challenge is not technical, organisational or financial. It is cultural.

People in planning, policy-making and administration usually do not have enough time for reading. Pressures coming from various breakdowns in educational systems are not of the kind that force them to scan regional or world experience for solutions. You may find that among people trained in other disciplines, hardly among educationists. We know the answers. When it comes to their advisors, like the old parish priest, they would rather have "people who have done their reading".

Even when the awareness is there, the truly 'friendly' ways of accessing information are not available. One of these advisors (who had worked for REDUC) said: "What we need here are two-legged REDUCs". That is, we need brokers, people who assimilate the contents of REDUC and are able to provide answers to current problems.

Neither does having REDUC available lead professors of education to use it. It is mostly used by researchers writing regional papers for development agencies for publication or by doctoral students writing dissertations for universities in the North.

One could trace the lack of habit of using current, indigenous, knowledge to schools of education and to the general weakness of education as an organised body of knowledge which, if accessed, could produce differences in practice. This is not only a problem in the South. Things are rather different when it comes to public health. REDUC is moving in the right direction.

The doctoral program in educational research set up by Dr. Miguel Petty at the Catholic University of Córdoba (Argentina) uses REDUC as a main source of bibliography. At the licentiate level, students are taught to abstract and write state-of-the-art papers after REDUC models. Graduate students from other schools of education use the microfiches of the originals, plus the abstracts.

This well-established practice shows that new habits can be created within training institutions that could bear fruit later when they have to face real problems.

At a more operational level REDUC, as a database, is based on the dedication of documentalists. In every centre you will find a woman for whom REDUC is more than just a job. The biennial meetings of directors and documentalists, plus joint training, forge close professional bonds and dedication. This is a network. The next problem starts when you try to bring that database to bear upon decision-making, that is, to take on the problems of those preparing actual decisions and to act as brokers between the data and the problem.

This implies analysis and a different sort of professional from the traditional documentalist. You need people who can, through the intermediary of written texts and on the basis of the work of documentalists, set up a communications process - a 'conversation' between researchers and people in ministries and school systems - and vice versa.

There is still a very mechanistic understanding of the information decision-making process. Little attention is given to such factors as commitment and interpretation, capacity to listen to breakdowns and new distinctions, to creativity. Finally every solution is a creation, not just an application of information. Information can trigger creativity, not replace it. REDUC learnt this from communications theory, common sense and practice.

Emphasis on 'use' is not only an ethical imperative but also a practical one. International money is available to set up information systems and to introduce new technology, but not to keep databases up to date.

There is a growing interest, however, in their use by policy people.

REDUC is learning that such use can be increased by introducing 'intelligence' into a database, i.e., technology that makes it user-friendly and by training brokers and users. Training for brokers and users seems to overlap with current methods of training in policy planning. Administration is constructed more and more as use of information.

Collecting, abstracting, disseminating is a simple way to build up educational research even in the least developed contexts. It is a good starting point for more sophisticated stages in terms of use in practice and actual production of new research, but there must be leadership to make the difficult move from collecting to analysing to dialogue with decision-makers.

A final - and obvious - lesson is that although research and administration have their own logic, the growing demand for efficiency and pertinence in social services (education particularly) makes it necessary to establish dynamic links between them.

This is the business of databases, information (we would rather speak of 'communications') systems and networks. Working with REDUC shows us that there is a growing demand to step up efforts in this direction. New frontiers, new dreams.

References

Cariola, Patricio. 1992 "El financiamiento de la IE en América Latina".

Paper, CIDE. Claro, Andres. 1988. Informe Técnico. García-Huidobro, Francisco Tellez y Jorge Ochoa. "Tendencias de la investigación Educativa en América Latina". Documento de trabajo. CIDE, 1990.

Gonzalez, José Hipertexto. Tratamiento documental de Datos. Santiago, REDUC, 1991.

Loera, Armando. 1991. "Posibilidades de un proyecto de diseminación de Información Educativa a través de REDUC", Informe de Consultoría, 1991.

Munizaga, Giselle, 1990. "Historia de REDUC". Mimeo REDUC 1990. REDUC IDRC Project Report, 1991.