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CENTRO PARA EL DESARROLLO DE LA EDUCACION NO-FORMAL - CEDEN

REPORT ON THE DESIGN, OPERATION AND EVALUATION OF AN
INFORMATION EXCHANGE SYSTEM FOR NON FORMAL
EDUCATION PROGRAMS IN COLOMBIA

Summary Submitted to AID.

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INTRODUCTION

Non Formal Education has been one of the areas in which the Foundation for Continuing Education in Colombia, FEPEC, has shown specific interest. Research and development projects on NFE are in charge of the Center for Development of Non Formal Education, CEDEN, Foundation's operational unit in that field.

CEDEN'S first study on NFE ¹ has provided a general frame of reference in terms of reality and potencial of non formal education programs in Colombia. Some of the most important findings of that study are related to the situation of information and communication exchange between non formal education programs in the country:

- * More than 400 NFE programs were found in just 4 out of the 22 States of Colombia. This fact can be taken as a clear indication of a high number of programs working around the country.
- * The communication level between programs is very low, even in the case of programs having similar purposes.
- * Most of the programs do not have enough information about theoretical studies, experiences, innovations and similar work done in and out of the country.

(1) W. VELANDIA, et. al. La Educación No-Formal en Colombia. Antecedentes y Perspectivas, FEPEC-CEDEN, 1975.

These and other related facts were analyzed during the first National Seminar on Non Formal Education, held on April/75. The meeting pointed out the importance of building an exchange and communication network between NFE programs. It also suggested that FEPEC-CEDEN should be in charge of looking a way to develop a pilot communication network.

The following pages describe the resulting project, carried out by FEPEC-CEDEN under the sponsorship of AID.

- GENERAL PURPOSES AND STAGES OF
THE PROJECT

- The general purposes assigned to the project were the following:
 - * To design, to develop, and to evaluate a service model for information exchange between NFE programs in Colombia, based on active participation of programs involved.
 - * To evaluate some of the materials used in the project.
 - * To detect NFE programs information needs.
 - * To obtain some additional information about non formal education in Colombia.

In programming the project, three stages were identified as follows:

1. Methodology and Design of the Service Model for Information Exchange.

- a) Development of conceptual methodological bases.
- b) Identification and systematic organization of informations needs of the programs.
- c) Organization of information to be used in the exchange network.

2. Model Implementation and Formative Evaluation.

- a) Identification and selection of units to be involved in the exchange network.
- b) Design, production, and distribution of information.
- c) Intermediate evaluation on information needs, model's operation, and materials used.
- d) Revision.

3. Summative Evaluation of the Project.

- a) Identification of topics to be evaluated.
- b) Involvement of users in evaluation and final recomendations.

II - INITIAL ACTIVITIES

The initial task perfomed was focused in looking for basic information in order to feed the design of the exchange information network. With this aim in mind, two surveys were applied as follows.

- a) The first survey covered 650 educational agents (field workers) from different programs. New data about information needs, interest and media used were found.
- b) The second covered 50 programs directors. They provided useful information on information needs, ways of information production and utilization, and about alternatives for participation.

Data collected showed that ^{there} exists a high variability in information needs and interests felt by NFE programs.* This fact pushed the project to limit the exchange services to some areas of content, that could be considered as having a high priority, given that the project could not cover the whole range of needs detected. Finally, the areas and topics found as priorities were organized as follows.

General Processes.

- Research and Evaluation.
- Design and Methodology.
- Planning.

General Contents.

- Community development.
- Nutrition, Health and Education for Family Life.

* More than 25 content categories were identified. This variability is clear if we consider that respondents belong to different institutions with different programs and activities.

III - SERVICE MODEL DESIGN

The service model was designed from the perspective of an information exchange system. The basic elements identified to build the system were:

1. The population of participant units in future exchange activities.

These were characterized as those organizations dedicated directly or indirectly to NFE activities. Two basic instances were defined for the units to belong to the system.

* Institutional.

* Personal (this subdivided in accordance to the role played by the person in the program, either as director or as field worker).

2. The content areas of the exchange service.

These areas were taken from priorities found in the two surveys mentioned before and in a previous study on NFE done by FEPEC-CEDEN.*

3. A collection and processing information unit.

This unit was operationalized through a Documentation Center on the NFE field.

* W. VELANDIA, et. al. "La Educación No-Formal en Colombia - Antecedentes y Perspectivas de Análisis, CEDEN, 1975.

4. A production and diffusion unit. In charge of designing and organizing information packages to be periodically distributed to the users of the system.
5. A control and evaluation unit. That was designed in order to provide feed-back to the system as a whole and (specially about its processes, products, and actions.

IV - OBJECTIVES OF THE SYSTEM

A capital component of the design was the definition of objectives to be accomplished by the system. Those objectives were stated as follows:

- * To ^{identify} detect, to collect, to process, and to diffuse the available information on the content areas selected.
- * To facilitate experiences and resources exchange among the units of the system.
- * To keep ~~in~~ track of information needs.
- * To generate and to provide those information services demanded by the programs.

V - OPERATIONAL MODEL

To operate the model on the national level it was seen appropriate to establish a Central Subsystem around which other regional subsystem could be located. For practical reasons, it was decided to assign the operation of the Central Subsystem to FEPEC (Foundation for Continuing Education in Colombia). The principal established functions for the Central Subsystem were:

- * Coordination of the System.
- * Colection, processing, analysis, and difussion of information.
- * Evaluation and Control.

To concrete the link of the users to the system, three modalities were forseen:

1. Information Production and Receiver Unit, being those which provide or receive information mainly about experiences.
2. Secondary Centers, being those which either 1) get information from a Primary Center, reproduce it, or difusse it to a group of programs; or 2) Collect information from different programs to send it to a Primary Center.
3. Primary Center, being those ^{whose} ~~which~~ principal function is to process and organize information in order to generate usefull services, products, and materials for the system.

VI - MODEL IMPLEMENTATION

Under the name of Servicio de Intercambio de Información entre Programas de Educación No-Formal - SINENF the designed system came into operation on September 1977.

To select the users, a sample of 500 names ^{was} ~~were~~ obtained from lists provided by different institutions. In such a way, the group selected to start the project was composed as follows:

50 Institution directors.

150 Program directors.

300 Field workers (Educational Agents).

1. Documentation Center.

In preparing project's action a big effort was put in organizing the Documentation Center prescribed by the design. By the time that the implementation stage started, more than 1.000 references on the NFE field were clasified by content areas, title and authors. One operation manual was produced and a guide of descriptors was done.

2. Contacting the Users.

To contact the selected sample of users, a first information package was prepared with the following content:

- * A presentation letter signed by the project's director.
- * A promotional printed pamphlet explaining the benefits, purposes, and services of the information exchange network.
- * Three modules on theory and use of research in NFE settings.

3. Network Covering.

Materials were sent to the listed people by mail. Not all the 500 names were reached mainly due to changes in addresses. Charts # 1 and # 2 show the final covering of the network by institutions and by regions of the country.

CHART # 1

Distribution by Regions of the Country.

Regions	Users
ANTIOQUIA.	30
ATLANTICO..	3
BOGOTA.	69
BOLIVAR.	4
BOYACA.	63
CALDAS.	6
CAUCA.	8
CORDOBA.	3
CUNDINAMARCA.	43
CESAR.	4
CHOCO.	4
CAQUETA.	1
GUAJIRA.	2
HUILA.	14
META.	9
MAGDALENA.	2
NARIÑO.	10
NORTE DE SANTANDER.	7
PUTUMAYO.	4
QUINDIO.	3
RISARALDA.	6
SANTANDER.	11
SUCRE.	1
TOLIMA.	56
VALLE.	19
T O T A L	382

CHART # 2

Distribution by Institutions.

Institutions	Users
ACPO.	128
ACOPI.	1
A.C.J.	1
B.S.D.	-
CADENARCO.	1
CAFAM.	2
CARVAJAL.	1
CAPACITACION POPULAR.	40
CREE.	2
C.T.C.	1
COLTEJER.	2
CONFAMA.	1
CONFAMILIAR.	-
FABRICATO.	1
FEDECAFE.	44
ICA.	81
ICBF.	10
IMUSA.	1
MCRR.	15
M.S.	34
SENA.	14
TEJICONDOR.	1
U.T.C.	1
T O T A L	382

4. Materials distributed before the 1st evaluation.

Materials distributed by SINENF share the following general characteristics:

- They are printed by multilith system using typed pages as masters.
- No more than one color ink was used in their impression.
- Color paper was used to identify content areas, for example, green color was used for material related to community development.
- All modules were about four to six typed pages.

From September to December, besides the initial information package, three other packages were sent as follows:

Package # 2 (October)

Materials included in this package were:

Informative bulletin. This publication was conceived as a periodical report on network news and letters received. Besides that, the bulletin had two permanent sections. One dedicated to provide orientation on bibliography available in SINENF Documentation Center, the other dedicated to give practical suggestions for field workers job. All information was illustrated as possible with simple draws and hand-write titles.

- Module on Community Organization, oriented to comment on some techniques and experiences for community mobilization.
- Module on message design, oriented to describe and explain a process to design materials in NFE.
- Module on Participation, oriented to identify some of the restrictive factors of participation.

Package # 3 (November).

Conforming materials of this package were:

- Informative bulletin (2nd issue) with the characteristics described before.
- Module on Planning of health, nutrition and children psychological stimulation programs with family participation.
- Module on planning of community organization activities.

Package # 4 (December)

- Informative bulletin (3th issue) as described before.
- Module on NFE conceptual characteristics.
- Module on presentation forms of materials to facilitate learning.

VII - INTERMEDIATE EVALUATION

The first evaluation of the project took place on december/77, after three months of network's operation. The principal topics selected to be evaluated were:

- Adequacy of some of the materials used (a sample of three moduls was randomly selected).
- Adequacy of design and model's operation.

To get information on those topics, formal and informal methods were used. In the formal side, a battery of questionaries was designed to measure some variables related to information materials like, comprehension, legibility, use, practical value, etc. On the informal side, seven workshops with users in 4 different places of the country were planned to generate participative evaluation on variables related to model's operation like information needs satisfaction, information processing, users participation, difussion channels, delivery systems, services of the network, etc.

1. Formal evaluation (questionaries).

The project finally adopted seven different forms of questionaries, distributed as follows:

CHART # 3

SUBJECT	TYPE OF RESPONDENT	
	Field Worker	Director
- Promotional pamphlet about SINENF.	X	X
- Module 1.	X	
- Module 2.	X	
- Periodical Bulletin	X	
- SINENF services.	X	X

In order to avoid that one person should answer more than one questionnaire, selection of respondents was done in the following way:

- Each name of the users-list was randomly assigned to 1 of 5 groups in the case of field workers, and to 1 of 2 groups in the case of program directors.
- Each evaluation subject was randomly assigned to one of the seven groups.

All questionnaires (377) were sent through mail. The following chart shows the number of questionnaires mailed and the proportion of respondents in each case.

CHART # 4

Forms of Questionnaires	Questionnaires Mailed	Questionnaires Received	%
- Promotional pamphlet about SINENF (field workers).	56	13	23.2
- Promotional pamphlet about SINENF (directors).	52	--	--
- Module 1.	54	8	14.8
- Module 2.	56	13	23.2
- Periodical Bulletin.	56	12	21.4
- SINENF services (field workers)	49	7	14.3
- SINENF services (directors)	54	16	29.6
T O T A L S	377	76	

Given the proportion of respondents, information detected was considered as indicative of tendencies. The general blocks of information obtained from questionnaires were:

a) On adequacy of the materials evaluated.

- The promotional pamphlet about SINENF looks like ineffective to achieve its purposes among the field workers. This fact might be due to the type of letter used, perceived as too small for some of the respondents.

- Module 1 (message design in NFE) was judged as clear and usefull. Most of the respondents also considered that formal aspects like extension, letter used, and format were appropriate.
- Module 2 (design and methodology in community organization experiences) was carefully read and well understood. Both content and formal aspects were found appropriate and practical.
- The periodical Bulletin was not carefully read. The bibliografy section and the practical one were qualified as usefull. Most of the respondents showed interest to colaborate in future issues, although nobody gave suggestions to improve the content of the publication.

b) On SINENF services.

- Respondents were invited to select from the services offered by SINENF, those which they considered more usefull in their dayly work. Answers were different in both groups directors and field workers, as the following chart shows:

CHART # 5

S E R V I C E S O F F E R E D	Field Worker	Directors
. Orientation on institutions which held information.	19.4 %	15 %
. Orientation on existing publications about NFE.	27.7 %	20 %
. Directory of existing resources in the network.	13.8 %	10 %
. Copies of the existing materials.	19.4 %	30 %
. Specialized Bibliography.	13.5 %	30 %

* Total is more than 100% given that respondents were allowed to select more than one alternative.

- Respondents were asked if they wanted to received additional copies of SINENF materials, to distribute to other people in their programs. 75% of field workers respondents and 85.7% of director respondents gave possitive answers to the question.
- In general terms, the operation of the network, the services offered, and the materials distributed were well received and were seen as usefull.
- There is not a central preference about delivery systems for materials. Some of respondens prefer mail, some others would like to receive SINENF materials through the institutions they work for, some others do not care.

- Some questions were asked to detect willingness to participate on directors level. Clear tendencies were found in two cases. First, most of directors are not able to reproduce SINENF materials, but they would like to write articles to be published and distributed by SINENF.

2. Participative Evaluation (Workshops).

This evaluation format was adopted to get feed-back on variables related to model's operation as mentioned before. Seven workshops, 4 for field workers and 3 for program directors, were organized in four different cities, as follows:

CHART # 6

City	Participant Field Workers	Participant Directors
Bogotá.	15	16
Medellín.	16	18
Cali.	12	14
Ibagué.	25	--
T O T A L S	68	48

Workshops participants were deeply informed about design and operation of the model before starting the group analysis. Discussion was oriented to get suggestions on the following topics:

- Information needs.
- Information processing and organization.
- Programs organization in the exchange network.
- Diffusion of information.
- Knowledge and exchange among programs.
- Ways of participation.
- SINENF services and products.

Suggestions obtained were classified and categorized in accordance to the select topics of analysis. The following is the list of the ten ~~first most~~ frequent suggestions:

1. Creation of SINENF operative units at the regional and local level.
2. Utilization of institutional communication channels and delivery systems to diffuse SINENF services and products.
3. Organization of exchange workshops on specific content areas at the regional and local level.
4. Publication of NFE program descriptions, including experiences, problems, and outcomes.

5. Publication of modules and articles written by field workers and directors of different programs.
6. Organization of correspondence services between the authors of the published materials and interested people of the network.
7. Increment of information on the "how to" of participation.
8. Increment of information on practical aspects.
9. Publication of SINENF evaluation results.
10. Organization of sectorial exchange sub-systems around specific content areas.

CONCLUSIONS OF INTERMEDIATE EVALUATION.

Main conclusions we came to are:

- It was confirmed that both directors and field workers of NFE programs recognize the need of information exchange services. Most of them perceive SINENF model as appropriate to offer those services.
- Information needs identification; content areas selection; design, production and distribution of materials were considered as suitable for NFE programs needs.
- Modules evaluated were found in general terms appropriate. Most of the people reported that they applied some of the ideas and that

they keep materials for future use. Respondents also emphasized their interest in practical content materials.

- The periodical Bulletin had a very positive acceptance in relation to the "orientación bibliográfica" section and the "cosas fáciles y prácticas" section.
- No preferences were found about delivery systems, new contents or new material formats. Those who suggested to include new contents do not indicated what they should be.
- Workshops were felt by participants as a very effective method to generate participation and enthusiasm on exchange information activities.

VIII - REVISION AFTER INTERMEDIATE EVALUATION

The principal modifications introduced to the project on the basis of evaluation results were:

- Increment of practical content materials. On this line, the practical section of the bulletin was increased ³ by two more pages and operative aspects of the modules later distributed were emphasized.
- Increment of descriptive information about program experiences. In doing so, a program interview was published in the bulletin.

Besides that, a letter was prepared and sent to the programs inviting them to describe and share their experiences.

- Participation of field workers and directors in writing articles for SINENF. In fact, the four modules sent after evaluation were prepared by external people to FEPEC-CEDEN.
- Stimulation of correspondence with the authors of the articles. This was done through the Bulletin by inviting the people to do so.
- Additional information was included about ways of participation in the N° 4 bulletin issue.
- A report on evaluation results was added to the information package 6.
- Additional information was given to programs directors on the kind of information to be collected and clasified for SINENF exchange. A letter was prepared and sent for this purpose.

IX - ACTIONS AFTER INTERMEDIATE EVALUATION

The central activities developed between intermediate evaluation and project finalization were:

- Addition of 20 names, proposed by workshops participants, to the users-list of SINENF.

Preparation and distribution of two more information packages, as follows.

Package # 5 . Informative Bulletin.
 . Module on Extension courses organization.
 . Module on Problems in promoting Community Organization.

Package # 6 . Informative Bulletin.
 . Module on How to give informat lectures.
 . Module on how to design a blackboard-bulletin.
 . Report on SINENF evaluation results.

- Planning and development of SINENF'S final evaluation workshop.

X - DESCRIPTION OF THE FINAL EVALUATION WORKSHOP

In accordance to the evaluation plan prescriptions, an interinstitutional evaluation workshop was held on May 19-20 in Bogotá, with the following characteristics:

1. Objectives.

- a) To inform on SINENF experiences and intermediate evaluation.
- b) To analyze future development alternatives for information exchange projects.
- c) To share ideas and experiences on information utilization in NFE.

2. Participants.

Participants were selected taking into account the following variables:

- a) Role of the person: 4 categories were established.
 - Field workers.
 - Program directors.
 - Information Systems administrators.
 - Observers and Experts.

- b) Geographic location: this variable was limited to the four regions of the country with the highest density of SINENF users as follows:
 - Bogotá.
 - Cali.
 - Medellín.
 - Ibagué.

- c) Institution: this variable identifies the institution to which the person works for.

Description of participants by the selected variables, is shown in page # 25.

FINAL WORKSHOP PARTICIPANTS, BY INSTITUTION ROL PLAYED AND GEOGRAPHICAL LOCATION INSTITUTIONS.

ROL		SENA	ICA	ACPO	ICBF	MCRR	ANDI	FAB	ACJ	MEN	COLCI	CIID	UNIC	FMOP	CP	SIP	TOTAL
1. FIELD WORKERS	B			X											X		2
	C																
	M																
	I	X				X											2
2. PROGRAM DIRECTORS	B		X		X												2
	C																
	M							X	X								2
	I																
3. INFORMATION SYSTEMS ADMINISTRATORS.	B									X	X						2
	C																
	M																
	I																
4. OBSERVERS	B											X	X	X		X	4
	C																
	M						X										1
	I																
TOTAL																	15

25

3. Content and Methodology.

The content topics selected for the workshop were:

a) information on SINENF experiences and intermediate evaluation.

b) Exchange analysis

- Convenience
- Objectives
- Benefits
- Difficulties

c) Discussion on future development alternatives for information exchange projects in Colombia.

- Operation
- Participation
- Executors
- Funding

Topic a) was informative. It was developed by verbal explanation and by a film strip projection. Analysis focused on topics b) and c) with small group discussions on previous stated questions. Plenary sessions were dedicated to generate conclusions and recommendations.

4. Conclusions and Recommendations from the Final Evaluation Workshop.

One of the products obtained from the workshop was a large list of ideas and suggestions on the content topics selected. They are detailed in the previous report. Besides that, the workshop participants proposed the following general suggestions and recommendations.

- a) Given the experiences accumulated by FEPEC-CEDEN in developing SINENF pilot project and the benefits that might be derived from the existence of an exchange information system, workshop's first recommendation is that FEPEC-CEDEN should continue in designing, promoting and developing information exchange services.
- b) Participants expressed their hope that a system like SINENF may continue in the future. They also, expressed their willingness to cooperate in such information exchange efforts.
- c) As an immediate action, participants agreed in spreading information on exchange benefits through institution bulletings in order to motivate exchange actions.
- d) Given the financing requirements and resources that should be available to operate an exchange information system, participants suggested the following short term and mediate term alternatives:
 - To plan and to write a financing proposal to be presented to the private sector in order to get technical and financing assistance.
 - To look for SINENF'S incorporation into the National Information System as the specialized sub-system in the NFE field. This proposal should be made to COLCIENCIAS.

- e) Presence of regional and local programs in SINENF network was seen as highly positive. Participants recommended that FEPEC-CEDEN should stimulate regional and local information exchange efforts, by providing its experiences and knowledge on the subject. Antioquia and Huila were seen as promising regions to develop such a projects.
- f) In order to stimulate interinstitutional information and exchange, workshop participants recommended to design and to publish a National Directory of NFE Institutions, describing their activities, the information they held and the way that information may be gotten.

XI - FUTURE PERSPECTIVES

Some experimental projects do not find the way to apply what has been learned, once that funding is gone. This project, financed by AID, has finished its experimental stage last May but will start on a second, trying to apply new knowledges on exchange services for Colombia and for Latin American, within the limits of the available resources.

The following are the actions that, discussed in the final evaluation workshop, will be taken in the next future. They are a nice opportunity for FEPEC-CEDEN to share its experiences. They are also a positive indicator for AID of continuity and growing in what they founded.

1. Second stage of exchange services.

The actions to be developed are:

- a) Codification of information held by NFE programs.
- b) Design and production of a new bulletin with the purpose of spreading what information is available, where it is and how to get it. This bulletin will also indicate how to process information for its immediate use and how to keep it for future needs.
- c) Free distribution of the bulletin first issue to 2.000 receivers. Those receivers will have to get a suscription to receive following issues either paying for them in money or in exchange services.
- d) Promotion campaign, at institutional level, to enhance production of new materials and to stimulate systematic recording of field experiences, few times described and published.

To develop those actions, US\$5.000 are available from FEPEC-CEDEN funds and it is expected to find an additional financing of US\$10.000.

2. Educational Campaing on information use.

It seems that a capital factor in limiting information production, distribution, exchange and use is the absence of habits in information

manipulation and utilization. Taken that factor into account, FEPEC-CEDEN will join its efforts with 3 national news papers, two specialized magazines, COLCIENCIAS and CIMPEC (International Center of Scientific Journalism). The purpose is to design and develop an educational campaign on the optimum use of available information.

3. SINENF inscription in the National Information System

As recommended by the final Evaluation Workshop, some steps are being taken to organize SINENF as a nucleus of the National Information System in the NFE field. COLCIENCIAS, institution in charge of the National System, seems to be interested in this proposal.

4. Creation of the Latin American Information Exchange System in Child Development.

This project is favored by several factors:

- * FEPEC-CEDEN information exchange experiences.
- * FEPEC-CEDEN experiences in Child Development.
- * Low exchange levels in that information area.
- * Proximity of the International Children Year.
- * Possibility to probe on the Latin American level actions already evaluated on the national level.

Some steps are already taken to involve ALER (Asociación Latinoamericana de Escuelas Radiofónicas) and ALTE (Asociación Latinoamericana de Teleducación) in joint programs to start in 1979.

The related projects indicated that what we learned in the past has founded actions for the present and for the future. The purpose is to innovate in order to democratize information.