A DESCRIPTIVE STUDY OF ESCUELA
CENPRITEC, LA PAZ, BOLIVIA

by

Daniel C. Fahrlander

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of the requirements for the degree

of

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in

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ABSTRACT

A Descriptive Study of Escuela Cenpritec, La Paz, Bolivia

by

Daniel C. Fahlender, Master of Science

Utah State University, 1970

Major Professor: Dr. Austin G. Loveless
Department: Industrial and Technical Education

A descriptive study of the Escuela Cenpritec school was carried out between September 15, 1969 and November 15, 1969 in La Paz, Bolivia. All pertinent literature was reviewed and interviews were conducted with school and government personnel.

A fine physical plant has been constructed that is well lighted and equipped. It is adequately protected by a perimeter wall and by the services of a night watchman. Classes were being conducted in the four areas of electricity, plumbing, masonry and carpentry.

Few of the objectives set forth in the organizational documents were met. Classes in the construction trades were offered but subsequent employment of the graduate in his specialty was very low. Coordination of on-the-job training, or, for that matter, any other kind of construction training in the city by Cenpritec did not exist. Only one class in training for the rural worker was held and efforts to encourage his return to the rural areas were unsuccessful because job opportunities were better in the city. Training for the student was at the very basic level and no classes for specialists were ever held. Basic literacy courses did not
materialize even though widespread illiteracy among the study body hindered efforts to teach the building trades. No classes in management and supervision training were held.

Difficulties which surround the school were myriad. The initial feasibility study apparently was not accurate and was based upon subjective evaluation rather than statistical data. Many promises of support, financial aid and help were never fulfilled. The Board of Directors often failed to discharge its duty in the direction and administration of Cenpritec. The Peace Corps advisors failed to ensure total operation of the school in accordance with its legal documents. A breakdown in communications between USAID/Bolivia and the Peace Corps/Bolivia led to confusion regarding responsibility for the school, conditions necessary for continued financial aid, and extent of authority of the volunteer instructors.

Inability or unwillingness of the Government of Bolivia to accept readily its financial responsibility for the school suggests that future funding may reach crisis proportions.

A policy for the continued evaluation and observation of Cenpritec does not exist and the rapid exchange of American personnel in Bolivia has led to the responsibility for its operation being placed primarily in the hands of the Peace Corps volunteer instructors.

Future successful operation of Cenpritec will depend upon a careful reassessment of its role with respect to the construction industry, a reactivation of the Board of Directors, a pledge of support from the Bolivian Government and a commitment by American officials for continued, long term supervision.

(81 pages)
CHAPTER I
INTRODUCTION

In Bolivia, as in much of the world, there is a movement of unskilled laborers from the farms to the cities. This has resulted in severe under-employment in metropolitan areas. To help train workers, the United States Agency for International Development entered into contractual agreement with the Bolivian government over a five-year period to provide funds for a vocational school in La Paz, which in 1969 was in its second year of operation. The name of this school is El Centro Privado De Formacion Tecnica y Artesanal, herein referred to as Escuela Cenpritec or the school.

Purposes of the school are as follows: (2)

1. Give instruction in masonry, carpentry, electricity, and plumbing.
2. Coordinate the on-the-job training given throughout the city and surrounding areas of La Paz.
3. Encourage trained farmers to return to the rural areas for employment in general construction.
4. Supply specialists for urban construction.
5. Provide basic literacy courses for workers who can neither read nor write.
6. Provide management and supervision training for existing skilled craftsmen.

While USAID's function was school funding, the Financial Agreement (13) stipulates Peace Corps assistance in building construction, classroom
instruction and overall administration. Peace Corps Volunteers were to work with Bolivian counterparts until such time as it was felt that the project could continue without further direct Peace Corps support.

Statement of the problem

After one year of operation, there existed a need to investigate the school's effectiveness in providing the services listed above. Such an investigation would be prerequisite to making possible changes in operation and content so that the purposes may be better fulfilled.

Objective of study

A descriptive study of Escuela Cenpritec was proposed to serve as evaluative background material. This descriptive study had the following objectives:

1. To ascertain the history and background of:
   a. the establishment of the school, its organization and objectives;
   b. the curriculum and the research leading to its development;
   c. the student, his age, place of origin, prior education, prior work experience, how he was selected and whether successfully employed after leaving school.

2. To make possible recommendations regarding:
   a. school organization;
   b. curriculum development;
   c. student placement;
   d. materials and equipment.

Procedure

A two-month on-site investigation was used to meet the objectives as
they are listed above. All available literature related to the conception of Escuela Cenpritec was reviewed. Development of the curriculum was investigated to determine the use of job analyses, to learn the recommendations of advisory committees and to determine the qualifications of the school staff to perform this function. Student background was determined from school records, and follow-up questionnaires determined the status of job placement.

On the basis of staff consultations and an analysis of data gathered during the investigation, a statistical comparison was made of results achieved by the school versus the objectives stated in the organizational papers.

List of abbreviations

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<th>Abbreviation</th>
<th>Description</th>
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<td>DCCP</td>
<td>Department de Coordinacion y Control de Proyectos</td>
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<td>Department of Coordination and Project Control</td>
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<tr>
<td>IBEAS</td>
<td>Instituto Boliviano de Estudios y Accion Social</td>
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<td></td>
<td>Bolivian Institute of Studies and Social Action</td>
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<tr>
<td>NDC</td>
<td>Nacional Desarrollo de Comunidades</td>
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<td></td>
<td>National Community Development</td>
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<td>TDC</td>
<td>Trabajadores Para el Desarrollo de La Comunidades</td>
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<td>AIFLD</td>
<td>American Institute for Free Labor Development</td>
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<td>USAID</td>
<td>United States Agency for International Development</td>
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<td>CONAVI</td>
<td>Consejo Nacional de Viviendas</td>
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<td>GOB</td>
<td>Government of Bolivia</td>
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CENPRITEC  El Centro Privado de Formacion y Artesanal
The Private Center of Training and Craftsmanship
UAW/STEP United Auto Workers Social Technical Education Programs
$ b Pesos Bolivianos
$ U.S. United States Dollars
12 pesos = 1 U. S. dollar
CHAPTER II

HISTORICAL BACKGROUND

Bolivia (16)

Bolivia, fifth largest country in South America, has a population of about four million people of which one-half are Indians. Two-thirds of the people make their living by farming; however, only 2 per cent of the land is under cultivation due to an unwillingness of the farmer to move the the eastern lowlands.

Lack of power and raw materials has delayed the development of industry, and the country has few skilled laborers with the exception of miners.

Public education in Bolivia is free, and the law requires children between the ages of seven and fourteen to attend school. However, because of the lack of teachers and the need for children to help support their families, many do not attend.

The Dunwoody Report

In an attempt to formulate realistic plans to develop Bolivia's human resources, the United States Agency for International Development (USAID) and the Government of Bolivia entered into contractual agreement in 1968 with the Dunwoody Industrial Institute for the following purposes:

(6)

1Supporting material, including direct quotes from letters and minutes, have been taken from Centric files during the two-month on-the-site investigation mentioned in Chapter I.
1. To conduct a qualitative assessment of existing in-school and on-the-job vocational education programs, facilities, and equipment, including training programs of the Bolivian Army.

2. Develop appropriate curricula, according to Bolivia's needs, for training in-school and on-the-job youth and adults in all areas of vocational trades and industry.

3. Identify the national institutional changes, particularly in the areas of vocational trades and industry.

4. Determine the plant additions and kinds and quantities of equipment needed to upgrade vocational training programs throughout the nation.

5. Estimate the costs required to produce the trained work force Bolivia will need to support the economic development programs for the period 1968-1980.

6. Assist the Government of Bolivia in preparing a plan of investment in vocational education which includes detailed attention to curricula, staff qualifications, physical plant, equipment, teaching methods, and placement of trained workers.

The resulting investigation was a recommended ten-year plan to cost over sixteen million dollars and to include a system of four Area Centers of Technology and Education.

Escuela Cenpritec was nearly completed at the time of the Dunwoody visit to La Paz, and classes began soon afterward; however, there is no mention of the school in the report.

Cenpritec

Introduction. This history of the development of Escuela Cenpritec was compiled from excerpts of correspondence found in Peace Corps, USAID
and school files. This correspondence between persons who directly or indirectly contributed to the development of the school is given in chronological order including date of transaction.

Development. The idea of a vocational construction school, the Private Center for Technical Training and Craftsmanship (Cenpritec), for the rural and urban laborers of Bolivia was conceived by Volunteer Lewis Thornton soon after March, 1965, when he came to the country to work with the National Community Development Project. Concerned about the lack of skilled tradesmen found among the native workers, Thornton met with Owen Lustig and Andrew Wilson, USAID/Bolivia in January, 1966, to discuss the feasibility of such a school. The substance of this meeting was a four-year plan of USAID assistance to cost a total of $U.S. 50,000 plus a $U.S. 5,000 grant from the USAID Mission Director's Fund for building construction. Long term financial support was to come from the Bolivian Ministry of Labor and/or the National Housing Board (CONAVI) and possible support from the Bolivian Chamber of Construction. The use of blue collar Peace Corps volunteers instead of college graduates would assure a qualified teaching staff and the effective training of Bolivian instructors.

Irving Tragen, Director, USAID/Bolivia, asked for school objectives and methods of implementation during a March 22, 1966, meeting between ICG and USAID. These were supplied by Thornton on April 17, as follows:

1. To train urban and rural construction workers at a single location in El Alto (the high plain surrounding La Paz, Bolivia).

2. To hold day classes for urban workers supplied by the Chamber of Construction.

3. To hold night classes for rural workers to be selected by the National Community Development Organization.

4. To hold management courses for construction foreman and
sub-contractors.

5. To form a steering committee composed of: Peace Corps officials, USAID officials, Ministries of Education and Labor, Bolivian Chamber of Construction, Federation of Construction Workers and the La Paz Mayor's Office.

Thornton acknowledged that in addition to the above objectives he had received the following promises of assistance:


2. Two or three scholarships from Russ Olsen, LaborAttaché, U. S. Embassy, to train Bolivians as instructors and administrators in the U. S. for one year.

3. Help in recruiting Bolivian instructors from John Wasson, Director, American Institute for Free Labor Development (AIFLD).

4. Help in drawing up a project proposal from Owen Lustig, Assistant Development Officer, USAID.

5. Help of an undetermined nature from William Jones of the Bolivian Center for Production.

6. A pledge of everything possible in the way of assistance from AFL-CIO Inter-American Representative, Andrew McLellan.

During May, 1966, Thornton and Charles Brady, USAID, wrote for texts on school and shop planning. They requested assistance from Peace Corps Headquarters and AFL-CIO sources. An inquiry to Tools for Freedom asking for a donation of equipment resulted in a return request for assurance of long-term local support of Cenpritec by Bolivian organizations.

Thornton provided these assurances:

2. Involvement of local building contractors through their associations.

3. Realistic and appropriate equipment requests secured through assistance of local contractors.

4. Contact with Ministries of Education and Labor for post-USAID financial support.

5. Continued Peace Corps involvement as long as necessary.


These assurances were supported by Brady, who stated that school administration"...will be handled by the Peace Corps until such a time it becomes a viable project and capable of being continued without further Peace Corps support."

June, 1966, Thornton formed a steering committee whose function was to present a financial proposal to the Ministry of Education. He asked the following people to serve as members:

1. Owen Lustig, USAID

2. Raimundo Soria, Bolivia Center for Production

3. A. Sanjines, Community Action

4. Ed Barnet, Peace Corps

5. Taualara and Seleme, Chamber of Construction

6. Juan Quiesbert, Federation of Construction Workers


8. John Wasson, AIFID

During the remainder of 1966, the city of La Paz donated 7,839 m² (approximately 1.7 acres) of land in El Alto for the school which was legally recognized by the Government of Bolivia and placed under the Ministry of Labor. Title to this land was given to the Bolivian Chamber
of Construction since Cenpritec had not been incorporated. Thornton wrote a feasibility study for USAID use in determining possible funding. He also made inquiries of both U. S. Military and Grace Lines Company regarding shipment of school equipment.

The first PCV instructors arrived October, 1966, after three months of training at Kent State University. They were part of a blue collar group that were to supervise school construction and begin training the apprentice laborers supplied by the Chamber of Construction. Bylaws were written by Thornton and approved by the steering committee in November, 1966.

By January, 1967, Wilson indicated that the "project has now progressed to the point where further progress must now await a determination of the USAID contribution." He recommended Tragen's acceptance of the school as a USAID project for these reasons:

1. The feasibility report prepared by Thornton had been read and approved by USAID officials Blumgart, Chirikos, Linton and Wilson.

2. This feasibility report was enhanced with these figures:
   a. $30 million could be invested in urban construction over the next several years.
   b. USAID applications and/or considerations totaled $2 million to stimulate growth of building and loan activity and $11.2 million for the Housing Investment Guarantee Program.
   c. Cooley loan applications for housing construction of $1,780,000.
   d. "An impressive amount of self-help obtained from Bolivian and other sources":

   Peace Corps  $U. S. 28,000$
Tools for Freedom  27,500
El Alto Property  8,000
Chamber of Construction  5,000
Tuition (also C. of C.)  3,000
AIFID  3,000
Feasibility Study  3,000
Arch. & Legal Fees  700
Texts and Other  500

$U. S. 78,700**

*potential U. S. earning capacity of four volunteers per year.

**U. S. sources = $U. S. 56,000 or 72 per cent.

Wilson's recommendation to Tragen ended with a plea for a four-year USAID financial aid program with matching (Bolivian) contributions and if no commitment is forthcoming from Bolivian organizations then USAID should convince the Ministry of Labor of the validity of this project.

In February, 1967, the Tools for Freedom organization was brought up to date on school progress with this report from Thornton:

1. Tragen approves voc-school and pledges USAID financial support at January 30, 1967, meeting between USAID and FC.

2. FC is working with USAID and the Government of Bolivia (GOB) on proposed five-year operating costs.

3. Letters have been resubmitted from Andrew Wilson to Tools for Freedom requesting amount and type of equipment they will be able to provide.

4. FC instructors are here and classes could start in seven months. (By September, 1967.)

5. Progress of the school now depends on donation of tools (unspecified).
This apparently was the last work of Thornton who left March, 1967. During March, all documents were approved at a joint USAID-PC meeting, the Board of Directors held their first meeting, and by May 12, the papers of incorporation awaited only the signature of Board President Roberto Azcui.

USAID signed a grant agreement with Bolivia May 17, 1967, providing $6,435,300 ($U.S. 36,000) for construction materials and first year operating costs.

PC/Bolivia and United Auto Workers officials met May 18 to discuss:
1. Impact of the proposed school on Bolivian construction field.
2. The June effort by UAW to recruit and train blue collar volunteers for Bolivia.
3. Availability of a technical school in the U. S. to serve as a volunteer for Bolivia.
4. A future meeting to discuss recruiting results.

Ground breaking ceremonies were held July 13, with Jack Vaughn, Director, PC/Washington, as principle speaker. The Chamber of Construction began to select 25 apprentice laborers to help build the school and also to receive instruction in building trades on a work-study basis.

John Linton took Andrew Wilson's place as USAID project advisor to Cenpritec and indicated that "... moving this project from an idea to an approved USAID project was an arduous and complicated maneuver ... an interesting case study in the genesis of a man-power development project."

By fall, 1967, the construction had started. Financing for the first year had been obtained from USAID and the 1968 budget had been submitted by the Board of Directors to the Ministry of Labor. However, tools and equipment continued to be a problem. Additional unspecified requests
from Peace Corps/Bolivia went to Partners for Progress, United Steel Workers, Inland Steel and the AFL-CIO. Gino Baumann, Director PC/Bolivia, asked Henry Norman's (UAW/STEP) help in eliciting a response from Tools for Freedom which resulted in shipment of two welders and Baumann's urging to keep up the pressure.

Building construction performed by workers paid by the Chamber of Construction was proceeding six hours a day with two hours of instruction provided by PC volunteers Colvin and Cooley.

Bolivian budgets are submitted and approved between October and December annually. December, 1967 brought no approval of the 1968 school budget nor acceptance of responsibility for the school by the Minister of Labor. After the Minister failed to attend a scheduled meeting with PC officials, V. Suazo, Assistant Director, AIFLD, offered these reasons:

1. Minister of Labor was in political jeopardy.
2. Minister of Labor was anti-USAID.

Other appointments with the Minister were to be attempted but PC Regional Director, Wadman Daly, suggested that no forceful diplomatic effort had been made by AIFLD to secure Ministry of Labor cooperation.

In answer to William Moffett's (PC/Washington) questions about the school, Baumann offered these assurances in December, 1967:

1. The construction stage is completely under control.
2. Staff meetings are dealing with curriculum, methods and teaching aids.
3. A Bolivian director, Eliodoro Flores, is on the job.
4. The Bolivian financial responsibility for C.Y. 1968 ($b 86,000-$U.S. 7,000) is in the national budget.
5. Foundations are in and walls half completed.
6. John Linton of USAID is spending full time on the project as
project advisor.

7. PCV Colvin taught bricklaying to the 18-25 apprentices two hours per day for six weeks.

8. The Chamber of Construction has committed 18 to 25 paid apprentices for four months to help with school construction.

These assurances were backed by promises of:

1. Eight more apprentices to be supplied by the Chamber of Construction.

2. A pledge of unspecified support by the Minister of Labor.

3. An expression of interest by the La Paz mayor in training municipal employees.

4. An offer to help with the curriculum design by the Bolivian Institute of Study and Social Action (IDEAS).

5. Involvement by the National Community Development in the training of their volunteers and area operations personnel at Cenpritec.

6. An offer of hand tools from local and other sources.

7. Help from AFL-CIO building trades unions in supplying tools in lieu of no support from Tools for Freedom, since this organization didn't get all the "hustling" from the PC/Washington that they needed.

Finally, Baumann offered this:

1. Confidence in UAW/STEP to provide needed training to new PCV's.

2. This opinion that to back out of a joint venture at that time would be nothing short of disastrous.

3. His belief that the feelings of PC/Washington evaluators John Smith and Chuck Costello that there was little host involvement was misleading; the problem lay, rather, with missed appointments, especially with the Chamber of Construction.
By January, 1968, the project now had a board of directors, a budget, half completed buildings and promises of continuing support.

The Bolivian administrator, Flores, was sent to a three-week seminar on industrial training centers in Mexico City with expenses paid by the Labor Attache, U. S. Embassy.

His first task on returning was to request a transfer of $65,520 ($U.S. 5,534) from the maintenance budget to the construction budget. This being necessitated by a change in building plans and the associated need for building materials. In addition, Flores worked with PCV's Cooney and Colvin in curriculum development.

To give future volunteers meaningful training, local volunteers were asked to develop a library of information pertaining to the construction trades as practiced in La Paz, Cochabamba and El Alto. This information, plus vocabulary, terminology and techniques, would be forwarded to the UAW/STEP Training Center in Detroit where training would begin in March, 1968. The supervisor for this school was Eugene Bower who made a trip to Bolivia for briefing and an on-site inspection.

A lack of all types of tools continued to be a problem, and at Baumann's request, PCV Cooney began to make local tool purchases. Three buildings were then ready for roofing. UAW/STEP began training of volunteers finished building construction in time for November 4 classes.

Volunteers Colvin and Cooney left in October, 1968, before classes began. The first day class began on November 11, 1968 and terminated on February 14, 1969. The second day class was held between April 1, 1969 and June 27, 1969. The third day class was held between August 15, 1969 and November 28, 1969.
### Participating personnel

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Organization</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jack Vaughn</td>
<td>Director</td>
<td>FC/Wash.</td>
<td>1966-Mar. 1969</td>
</tr>
<tr>
<td>Wm. Moffett</td>
<td>Director-Latin Am.</td>
<td>FC/Wash.</td>
<td>1966-Aug. 1969</td>
</tr>
<tr>
<td>Gino Baumann</td>
<td>Director</td>
<td>FC/Bol.</td>
<td>June 1967-Pres.</td>
</tr>
<tr>
<td>Forrest Craven</td>
<td>Operations Officer</td>
<td>FC/Wash.</td>
<td>Nov. 1966-Nov. 1969</td>
</tr>
<tr>
<td>Arthur Purcell</td>
<td>Director</td>
<td>FC/Bol.</td>
<td>May 1966-June 1967</td>
</tr>
<tr>
<td>Ed Barnett</td>
<td>Assoc. Director</td>
<td>FC/Bol.</td>
<td>1966-1968</td>
</tr>
<tr>
<td>Lewis Thornton</td>
<td>Volunteer</td>
<td>FC/Bol.</td>
<td>June 1965-June 1967</td>
</tr>
<tr>
<td>Steve Ball</td>
<td>Volunteer</td>
<td>FC/Bol.</td>
<td>July 1968-Pres.</td>
</tr>
<tr>
<td>Dennis Kuklok</td>
<td>Volunteer</td>
<td>FC/Bol.</td>
<td>July 1968-Pres.</td>
</tr>
<tr>
<td>Woody Johnson</td>
<td>Volunteer</td>
<td>USAID/Bol.</td>
<td>1966-May 1969</td>
</tr>
<tr>
<td>Irving Tragen</td>
<td>Director</td>
<td>USAID/Bol.</td>
<td>1966-May 1969</td>
</tr>
<tr>
<td>Owen Lustig</td>
<td>Asst. Dev. Officer</td>
<td>USAID/Bol.</td>
<td>1966-1969</td>
</tr>
<tr>
<td>Andrew Wilson</td>
<td>Asst. Econ. Advisor</td>
<td>USAID/Bol.</td>
<td>1966-1969</td>
</tr>
<tr>
<td>David Lazar</td>
<td>Deputy Director</td>
<td>USAID/Bol.</td>
<td>1967-1968</td>
</tr>
<tr>
<td>John Linton</td>
<td>Manpower Advisor</td>
<td>USAID/Bol.</td>
<td>1967-Pres.</td>
</tr>
<tr>
<td>Dale Harding</td>
<td>Education Advisor</td>
<td>USAID/Bol.</td>
<td>Present</td>
</tr>
<tr>
<td>Edgar Dick</td>
<td>Program Officer</td>
<td>USAID/Bol.</td>
<td></td>
</tr>
<tr>
<td>Valentin Suazo</td>
<td>Asst. Director</td>
<td>AIFLD</td>
<td>1966-1968</td>
</tr>
<tr>
<td>Gene Bowers</td>
<td>Director</td>
<td>Detroit Skill Center</td>
<td></td>
</tr>
<tr>
<td>John Wasson</td>
<td>Director</td>
<td>AIFLD</td>
<td></td>
</tr>
<tr>
<td>Wm. Jones</td>
<td>Assessor of Industry</td>
<td>Bolivian Center for Industrial Productivity</td>
<td></td>
</tr>
<tr>
<td>Andrew McLellan</td>
<td>Inter-American Rep.</td>
<td>AFL-CIO</td>
<td></td>
</tr>
<tr>
<td>Henry Norman</td>
<td>Consultant</td>
<td>UAW-STEP</td>
<td></td>
</tr>
<tr>
<td>Basilio Llacuris</td>
<td>Director</td>
<td>Tools for Freedom</td>
<td></td>
</tr>
<tr>
<td>Eliodoro Flores</td>
<td>Director</td>
<td>Compritec</td>
<td>July 1967-Pres.</td>
</tr>
</tbody>
</table>
CHAPTER III
THE SCHOOL IS INITIALLY PLANNED

Introduction

This chapter describes the organization and operation of Cenpritec as initially conceived and documented by its founders. The information presented here was taken from various legal and descriptive papers found in Peace Corps, USAID and school files. Nearly all of it had to be translated from Spanish and required certain interpretation by the author in order to be comprehensible in English. A compromise had to be made between a liberal interpretation to enhance the style of the translated document and a need to preserve the accurate and true intent of the original authors.

School organization (h)

Cenpritec is a private institution formulated by the following organizations: The Bolivian Chamber of Construction, the La Paz Mayor's Office, the Ministry of Labor, the Federal Syndicate of Bolivian Construction Workers, the International Union of Private Christian Businessmen, and the American Institute for Free Labor Development. Those groups participate in the organization of Cenpritec, in its financial support and other forms of cooperation, enjoying equal rights and prerogatives as much in the organization as in the operation of Cenpritec. They will count on the technical advice of the Bolivian Center for Industrial Productivity, USAID, and the Peace Corps. The principle domicile of Cenpritec is the city of La Paz where the Board of Directos will function. The Director of Cenpritec also will reside in La Paz, allowing the Board
of Directors to indicate the location of other centers of training to be established later in whatever part of the Republic in conformity with the regional necessities of the country.

Cenpritec has a Board of Directors and a Director-Administrator, and will have the ability to organize centers of professional training for workers in other occupations in accordance with the financial situation of the organization.

Objectives (2)

The Private Center of Technical Training and Craftsmanship is an institution for technical and educational training. It offers to the construction laborer the means necessary for his occupational competence so that he can acquire improved skills and knowledge, and in this way improve his economic conditions and contribute effectively to national development.

Cenpritec has the mission of training laborers so that they will be better workers by means of preparation in classrooms and shops on a site conveniently located in El Alto.

The basic objective of Cenpritec is the improvement of personal qualifications according to the requirements of the construction industry. This will be attempted by means of courses eminently practical that will permit manpower training at different levels in order to serve the rural and urban needs of the country.

Cenpritec offers opportunities for training in the following specialties: masonry, plumbing, electrical installations, and construction carpentry. To fill the urgent requirements of the construction industry, Cenpritec offers short courses for perfection and training in the above specialties. Courses of apprenticeship are destined for youth who desire
to learn a trade according to their calling. Courses of specialized training are designed for laborers who desire to acquire high specialization in specified items of construction.

Objectives (14)

The basic goal of the Center of Technical Training is the preparation of qualified and capable personnel for the requirements of the nation's industry through programs of technical training and craftsmanship: (by means of practice and adequate training) programs that permit the perfection of manpower at basic and medium levels which are required so much in industry as well as in agricultural.

This center will be for the training of workers in those occupations pertaining only to the activities that correspond to this center or those of construction.

For the effective completion of the above indicated objectives, Cenpritec will coordinate its activities with other similar programs, receive financial support and/or technical assistance from other organizations, national, public or private, from private individuals or specialized organizations such as the Alliance for Progress, the United Nations and those others of international character that promote the creation and function of institutes and centers of improvement and training of manpower both industrial and agricultural.

Objectives (14)

The need for a vocational center for construction workers has become apparent since the construction industry in the country has grown beyond its supply of specialized labor in the fields of carpentry, masonry, plumbing, electricity, and other construction-oriented trades.
The purpose of this grant is to support the creation of a vocational center for training in construction trades by providing funds for the erection of adequate building facilities, and for the necessary operating costs that will be incurred during its first five years of operation.

The principle objective of this project is to provide adequate training in the construction trades to workers who reside in urban areas, and also to improve the skills of masons of nearby rural areas and to acquaint them with modern building techniques. To satisfy the needs of both areas, the urban and rural, it has been decided that the center be located in El Alto of La Paz, where the Mayor's Office has donated 7,839 square meters (1.9 acres) of land for this purpose.

**Legal authority** (§)

The Center recognizes the Board of Directors as the maximum authority and the Director-Administrator as executor of programs, and also the instructors, secretary and night watchman, each one with his respective responsibilities.

**Legal authority** (¶)

The president of the Board of Directors and the Director-Administrator jointly will have the legal representation of Cenpritec. The president and the voting members of the Board of Directors are collectively responsible for the progress and work undertaken at the institution.

**The board of directors** (¶)

The Board of Directors constitutes the maximum authority of Cenpritec and will be formed of representatives of each of the organizations that promoted its creation and funding as listed under the organizational section of the Bylaws. Voting members have a voice, a vote and equal rights. The advisors will have a voice only.
The Board will elect from among its members a President, Vice-
President and Secretary-General who will remain in office one year,
whereupon they may be re-elected. None of the members of the Board will
receive remuneration for their work in connection with the school.

Duties of the Board are:

1. To effect the hiring and firing of the Director-Administrator
   at each one of the centers that will be established under
   Cenpritec.

2. To establish the Internal Regulations of Cenpritec and to
   approve the Internal Regulations established by each one of
   the dependent centers.

3. To approve the budget of Cenpritec for each fiscal year.

4. To approve the annual balance and to effect auditing negoti-
   ations when it is deemed necessary.

5. To promote the creation of Centers of Professional Training
   in the country subordinate to Cenpritec.

6. To approve plans of work, programs, projects and political
   activities that are presented for consideration by the
   Director-Administrator of each center.

7. To sustain legal proceedings against Director-Administrators
   of the dependent centers when it is deemed necessary.

8. To approve lists of scholarships for each program prepared by
   the Director of the centers.

9. To approve the accounts submitted by each respective Director
   regarding the work done in each trimester and the completion
   of the programs at each one of the centers.

10. The Board of Directors will meet regularly each thirty days,
    or if circumstances require it, at the request of any member
or the president. A majority of the voting members and the
president will be sufficient for a quorum.

11. In agreement with the development of the activities of Cenpritec,
other entities may be admitted to form part of the Board of
Directors with equal rights and prerogatives, and with previous
approval of a two-thirds vote.

12. The present Bylaws will become law provisionally at the date of
their approval by the Board and permanently upon obtaining re-
cognition by the person legally regarded as being the executive
power. The Secretary-General of the Board will be in charge of
the corresponding legal negotiations.

13. A two-thirds vote of the Board members is required to make any
changes in the present Bylaws.

Board of directors (2)

Cenpritec is governed by a Board of Directors formed by various in-
stitutions, both national and international, whose composition is as
follows:

1. The Ministry of Labor
2. The La Paz Mayor’s Office
3. The Bolivian Chamber of Construction
4. The Federation of Construction Workers
5. The American Institute for the Development of Free Unions
6. The International Union of Private Christian Businessmen
7. The United States Agency for International Development
8. The Peace Corps
9. The Bolivian Center of Industrial Production

From the Minutes of the Board of Directors: (3)
Voting Members 1968

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Representing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roberto Azcui</td>
<td>President</td>
<td>Chamber of Construction</td>
</tr>
<tr>
<td>Javier Bray</td>
<td>Vice-President</td>
<td>AIFLD</td>
</tr>
<tr>
<td>Nelly Baudoin</td>
<td>Secretary</td>
<td>Ministry of Labor</td>
</tr>
<tr>
<td>Raul Roca</td>
<td></td>
<td>UNIAPAC</td>
</tr>
<tr>
<td>Juan Quisbert</td>
<td></td>
<td>Federation of Workers</td>
</tr>
<tr>
<td>Guillermo Sanjines</td>
<td></td>
<td>Mayor's Office</td>
</tr>
</tbody>
</table>

Non-Voting Members 1968

<table>
<thead>
<tr>
<th>Name</th>
<th>Representing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jim Cooney</td>
<td>Peace Corps</td>
</tr>
<tr>
<td>John Linton</td>
<td>USAID</td>
</tr>
<tr>
<td>Raul Vivado</td>
<td>Center for Productivity</td>
</tr>
</tbody>
</table>

Financial agreements (14)

Funds provided by this agreement in the amount of $bh 35,300 will be allocated for the first year to the cost of building materials for the center, since the construction labor of the center will be donated by the participants of the center as a self-help measure, and operating expenses for the first year of operation as noted in Annex "B." United States manufacturers, through the Tools for Freedom program, will donate carpentry kits, plumbing tools, office furniture and a specialized library.

For subsequent years, starting in Calendar Year 1968, the operating costs of the Center will be financed as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>By USAID</th>
<th>By Ministry of Labor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1968</td>
<td>80 per cent</td>
<td>20 per cent</td>
</tr>
<tr>
<td>1969</td>
<td>60 per cent</td>
<td>40 per cent</td>
</tr>
<tr>
<td>1970</td>
<td>40 per cent</td>
<td>60 per cent</td>
</tr>
<tr>
<td>1971</td>
<td>20 per cent</td>
<td>80 per cent</td>
</tr>
<tr>
<td>1972 and thereafter</td>
<td>100 per cent</td>
<td></td>
</tr>
</tbody>
</table>

The budgets for all the years in which USAID is partially financing the Center will have to be approved by USAID and the GOB prior to the
release of any funds, which in turn will be subject to separate project agreements.

Funds provided will be released through the DCCP office in accordance with standard procedures established by the GOB and USAID. It is hereby agreed that these funds will be available for the period to end December 31, 1968.

Conditions for release: The funds hereby obligated will be released to the DCCP after the following steps have been taken:

1. Acceptance by the GOB of the Vocational Center for Construction Workers as a legal entity in accordance with Bolivian laws.
2. Designation of a Board of Directors to run the Center, acceptable to the GOB and USAID.
3. Technical assistance, specifically Peace Corps assistance should be stipulated and agreed upon by the GOB and USAID.

Financial agreements (15)

<table>
<thead>
<tr>
<th>Year</th>
<th>By USAID</th>
<th>By GOB</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 67-Oct. 68</td>
<td>100 per cent</td>
<td>0 per cent</td>
</tr>
<tr>
<td>Nov. 68-Oct. 69</td>
<td>80 per cent</td>
<td>20 per cent</td>
</tr>
<tr>
<td>Nov. 69-Oct. 70</td>
<td>60 per cent</td>
<td>40 per cent</td>
</tr>
<tr>
<td>Nov. 70-Oct. 71</td>
<td>40 per cent</td>
<td>60 per cent</td>
</tr>
<tr>
<td>Nov. 71-Oct. 72</td>
<td>20 per cent</td>
<td>80 per cent</td>
</tr>
<tr>
<td>Nov. 72-Oct. 73</td>
<td>0 per cent</td>
<td>100 per cent</td>
</tr>
</tbody>
</table>

Financial agreements (12)

While the Minister of Labor has indicated he will help financially with the project, the lack of resources available to the Ministry at this time leaves little hope for financial assistance in the area of operating
costs.

Taking a realistic approach to the general contractors, it seems unrealistic to assume they will voluntarily provide sufficient funds to supply long-range financing, necessary to carry on the operation of the school.

There is the possibility of taxing construction projects which would go to apprenticeship training and in turn could be turned over to the school to pay the operating costs. The implementation of such a tax is beyond the scope of those now involved in the planning of this school. USAID would have to be relied upon as to the feasibility of such a proposal and its implementation.

Tuition will contribute very little to the operating costs of the school.

Using the statistics in USAID's Economic and Programs Statistics book, in 1964, construction workers received an average monthly salary of $6359 or $U.S.30 per month. If each student were required to pay $U.S.5 a month tuition, this would be one-sixth of his monthly income. Assuming there will be three 4-month classes with 50 students per session for a total of 150 students the first year, the second year 75 students each session for a total of 225 students for the year, and the third year 100 students each session for a total of 300 the third year; the first year income from tuition would be $U.S.3,000, the second year $U.S.4,500, and the third year $U.S.6,000. It is not assumed that a student will attend the school the year around, but will attend the first four-month session, and then perhaps the second year return for additional work.
Financial agreements (1)

USAID to Bolivia is financing 100 per cent of the school's cost for the first year, which amounts to a budget of $U.S.36,275. During the next five years, USAID will continue to finance the school, but in 20 per cent decreasing amounts each year. At the end of the fifth year, maintenance and support of the school will be paid for by the Bolivian Ministry of Labor.

Financial agreements (10)

The Ministry of the Treasury who pays part of the operating cost, will pay total cost after five years.

There is no reference to school finance in either the Internal Regulations or the Bylaws.

Staff duties (4)

The Director-Administrator directs the plans, programs and projects. Thus, in supervision of activities of the respective centers, he constitutes the highest administrative position of the center he directs. His decisions in affairs that are administrative, economic-financial, technical, pedagogical and disciplinarian can only be revised by the Board of Directors.

The Director is charged with organizing the functions of the secretary, archives, statistics, and with the programming of studies in accordance with the immediate necessities of the center he directs with previous approval from the Board of Directors.

The Director is employed full time and will receive a fixed remuneration from the budget. He will not discharge any other private or public function with the exception of teaching at Cenpritec.
The following are duties of the Director-Administrator:

1. To comply with the provisions of the Bylaws, the Internal Regulations, and the standards and decisions of the Board.
2. To direct and coordinate the activities of the center.
3. To establish programs of work and study for the center.
4. To establish the programs of studies in consultation with the instructors of respective disciplines.
5. To designate subordinate personnel in accordance with the budget and approval by the Board of Directors.
6. To establish disciplinary standards for the center, the faculty, and the students, and the relationship between them.
7. To prepare the Internal Regulations and Scholarship Rules of the respective centers and to submit them to the Board of Directors for approval.
8. To present to the Board of Directors for their approval a list of students to receive scholarships.
9. To present to the Board of Directors before the 30th of September of each year the budget for the following year in detail for their approval. Also to present to the Board before the 31st of January of each year the balance and annual report on all activities of the center.
10. To inform the Board of Directors every trimester of the progress of the center and of the economic state of the institution and to obtain the opinions of the Board members.
11. To discharge all the special functions with which the Board of Directors has entrusted him at whatever time.
12. To plan modifications of the Internal Regulations, which for their legal status should be approved by the Board of Directors.
13. To carry out with previous approval of the Board all other legal work that results in the benefit of the school.

14. To submit for consideration to the Board of Directors all plans, programs, information and projects of general interest for the improved operation of the respective centers such as all suggestions that might be suitable in the judgement of the instructors.

15. The funds of each center will be managed and administered by the Director in conformance with the budget and the Internal Regulations, and information should be brought to the Board of Directors regarding the economic situation of each fiscal year.

16. The Board of Directors will receive annually from each Director-Administrator information explaining the work done in each preceding year, such as the results obtained at each of the dependent centers.

17. The Director will propose to the Board within 60 days of its constitution, the plans and programs that are required for the functioning of each center.

18. The Director in the same term will prepare regulations made possible by the application of the standards in the present Bylaws and submit them for consideration by the Board.

Instructors (5)

1. All of those that impart lower and intermediate level training within the program of Cenprimec in accordance with the specific functions charged to each one of them form the group known as instructors.
2. The number of instructors will reach four for this year and will be for the following fields: masonry, plumbing, carpentry, and electricity.

3. The contracts for personal services of the instructors and of all personnel will be extended by the Director under the knowledge of the Board of Directors. These contracts are initially for a period of one year, and once this period is concluded, the Board and the Director are in charge of taking the necessary measures.

4. Before the appointment of the instructors they should present a record of work and it is demanded of them a minimum of years (not specified) of practical experience.

5. The instructors are directly responsible to the Director of the Center.

The most important functions of the instructors are:

1. To prepare a program of instruction in complete form for each course corresponding to his specialty.

2. These programs should be prepared not only for each field, but also for each form of advanced specialization.

3. On presentation for their approval, the programs should be accompanied by a list of necessary materials needed for the different program courses.

4. To prepare installation work and to teach it in practice and theoretical form in accordance with the schedule that they establish.

5. To comply strictly with the daily period of work that is established in the contract of work.
6. To take active part in the supervision of the apprentices that might be in their shops or in the execution of their work.

7. To keep watch on the discipline and security of their students.

8. To receive and to assume responsibility for the workshop and tools that correspond to the specialty they are going to teach and to provide for the adequate supply of material and equipment necessary for the instruction and for maintenance.

9. To maintain mutual respect between instructors and students.

10. To improve their own knowledge and abilities.

11. To participate in all the activities of the center, whether within or outside the premises.

12. To orient the student to the standards of discipline and conduct.

13. To organize the necessary documentation for the registration and certification of all the acts relative to the training of the students.

14. To present their reports punctually.

Secretary (5)

Since the secretary is the principle co-worker of the Director of the Center, he/she should comply with and maintain faithful observance of the following points:

1. The attention of the library of the center will be his/her responsibility as well as the control and conservation of each one of the books or publications that is received.

2. He/she should prepare for the registry and control of those that borrow books; however, no book should leave the library for more than two weeks.
3. To arrange for the acquisition of books and whatever publications might be of use to the center.

4. To classify and control books.

5. To maintain and organize the forms and information blanks for the use of the school and also for the correspondence, both received and transmitted.

6. To copy by machine all documents and required notes, both for the Director and the Instructors.

7. To keep account of all paper or writing materials that are required for instruction, and once approved by the Director, to tend carefully to the required materials for the teaching plan.

8. To acquire teaching materials and office materials after consultation with the Director, allowing 10 days.

9. To witness the deposit of materials in the storeroom and to obtain the keys after the deposit.

Night watchman (5)

The night watchman should stay in a continuous manner at the school site because his work is very essential and he should comply further with the following:

1. He should maintain nighttime vigilance.

2. At no time should he allow the removal of equipment or tools, except with a corresponding note of removal from the Director.

3. He should maintain a single door of departure, and only in case of necessity should he free the rear door.

4. He should analyze whatever equipment or material that comes into the Center, and he should register it with the secretary and notify the Director.
5. There exists a storeroom of materials and equipment which will be opened only when it is determined that an instructor needs material, and he should demand from the instructor the corresponding note upon which will be detailed the quantity and class of material approved by the Director.

6. Once the deposit of materials has been made, the keys to the storeroom should be returned immediately to the secretary.

7. After the request for materials, all the materials in storage will be inventoried entirely by the night watchman, and the remainder of the material or equipment will be compared with the corresponding lists of deposit.

8. Whatever abnormality is observed within the Center it should be communicated immediately to the Director.

Course Offerings (5)

Those courses that are initiated at Cenpritec should be in accordance with the initially established plan; that is to say, to establish courses only for the four known forms of training.

Before beginning each form of training or selected specialty, the courses should be prepared, taking into account the following:

1. A sufficient number of students.
2. The order of priority of each form of training; for example, if workers are required immediately, courses of accelerated training should be initiated.
3. Analysis of the branch or specialty that is required.
4. For whom it is destined, whether rural or urban.
5. The number of students foreseen per class.
6. The lesson plan, including materials and class schedule.
7. The registration and entrance tests.

8. The instructors, their places of work, tools, equipment and teaching materials.

9. The budget for the course.

The content of each course and its schedule should be adjusted to the initial plans already established and the programs that might be approved. All positive suggestions must agree with the standards established for each form of training.

The teaching programs of the Center should be corrected if it is necessary and presented to the Board on the 30th of October of each year. If it is desired to introduce other forms of training apart from the four existing forms, it can be done with the priority of 30 days from the date of application of the applicants of the course.

After beginning whichever of the forms of training, appropriate information should be given weekly to the Director will all information pertinent to the completion of future courses or whatever additions that circumstances might demand.

Once the initial courses or whichever stage of teaching is completed, information and comments should be given weekly to the Director as well as the results and recommendations regarding the improvement of methods and programs.

The information, programs, and the beginning and end of each course should be reported on the forms the Director has prepared and should be clear and precise.

Each instructor should hand in a midterm report to the Director concerning the functioning of the course.

Any member of the Board might present himself in the classes of the Center, and the instructors should obtain all the help needed from these
visits that can provide the solution of any problem and also to obtain from them many positive suggestions.

The provisions of this chapter should be observed and faithful compliance be given to its articles.

Course offerings (1h)

The purpose of this grant is to support the creation of a vocational center for training in construction trades by providing funds for the erection of adequate building facilities, and also provide for the necessary operating costs that will be incurred during its first five years of operation.

It is the initial intention of the developers of the project to train the rural masons during the day and the urban workers in the evenings. Urban workers selected for training at the center will be nominated by the Bolivian Chamber of Construction and the Labor Federation of Construction Workers of La Paz. The masons of the rural areas will be selected by the Peace Corps volunteers and the Community Development Workers of the communities, within the Vocational Program of the Community Development Program.

Training offered by the Center will consist of practical courses in construction, including use of tools, techniques and methods, reducing the theoretical teaching to the minimum.

There are no statements in the Bylaws regarding course offerings.

Admission requirements (2)

Admission requirements are: to know how to read and write, to know the four operations of arithmetic and to be a minimum of 14 years of age.

(There is no reference to admission requirements in either the Internal Regulations or the Bylaws).
CHAPTER IV
FINDINGS

Chapter III presented the organization and objectives of Cenpritec based upon several sources of primary documents. The lines of administrative organization as well as staff duties were clearly outlined. However, after on-site inspections, staff visitations and extensive review of the minutes of the meeting of the Board of Directors, the author has determined that, in many cases, the actual operation of the school bore little resemblance to that stated. In some areas, formal delegation of responsibility did not exist and this resulted in either a duplication of effort, misguided effort or no effort at all.

Documentation, although abundant, was difficult to find and required a search of USAID, Peace Corps and Cenpritec files. Most of the correspondence was in English facilitating the review of the school’s history presented as Chapter II. The bylaws, Internal Regulations and minutes of the meetings of the Board were all in Spanish and as such were subject to possible error and interpretation in translation.

Other than the vague stipulation of Peace Corps assistance which is found in the Grant Agreement of 1967 (14), the actual role and specific function of the Peace Corps is relation to the school has not been stated. The Peace Corps Director suggested that Cenpritec was a joint USAID/PC venture but would not accept legal responsibility for it. The Peace Corps advisor in a letter to USAID (9) suggested that is is completely a USAID project. Conversation with members of the Human Resources Division, USAID, determined that USAID is not legally responsible for any
project it funds either wholly or in part.

The Peace Corps Director viewed USAID's continued funding of Cenpritec as automatic and that any refusal to do so would be a breach of international contract. The USAID opinion held that continued funding depended upon the outcome of a questionnaire to determine if the school was functioning according to the Bylaws and meeting its stipulated objectives.

Not one American official involved with Cenpritec today was a party to its inception in 1967. All have inherited responsibility for the school from predecessors. After the departure of John Linton in 1968, and until the appointment of Dr. Dale Harding, October, 1969, there was an absence of assigned responsibility in the Division of Human Resources.

Bolivian obligation to Cenpritec is undetermined since financial support came from sources other than those signing the Grant Agreement. The Bylaws place responsibility for the progress of Cenpritec with the Board of Directors and with the school director. Monthly meetings were to be held for a variety of purposes all related to school operation, but the Board, whose officers and voting members are Bolivian, failed to meet regularly during the crucial formative period of school development. (See Table of Meeting Attendance on next page.)

Between March, 1967, and November, 1969, the Board met only ten times, the presidency changed four times, USAID and PC representation changed twice, and just one board member attended all meetings. Some missed all but one or two.

In lieu of Board action, administrative matters were handled unilaterally by the Director and the Peace Corps advisor. Contracts with instructors, secretary and custodian were not issued by the Board but by the Director personally. The annual budget was submitted without approval, an athletic playing field and a course in electronics were
Table 1. Meeting attendance, Board of Directors--Cenpritec

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>28</td>
<td>27</td>
<td>11</td>
<td>29</td>
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<td>22</td>
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<td>2</td>
<td>27</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ascui (Chamber of Construction)</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bray (AIFLD)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baudoin (Min. of Labor)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Roca (UNIAPAC)</td>
<td>X</td>
<td>X</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quisbert (Fed. of Laborers)</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sanjines (Mayor's Office)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooney (PC)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linton (USAID)</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vivado (Center of Production)</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*The Chamber of Construction continued to be represented by other members of the Chamber.*

added without approval, and scholarships were handled on a work-study basis to provide manpower for new school building construction. Impatience with school progress led to a Peace Corp takeover of some of the duties of the Director, a certain amount of animosity and strife during faculty meetings led to Peace Corps advisor attempts to have the Director removed, quarterly summaries of student progress and program improvement were not made, and salaries of the staff were arbitrarily altered in midterm from
the figures shown in their contracts. As of November, 1969, there had
never been a USAID audit of the school's financial records.

The following questionnaire was presented by the author to representa-
tives of the Peace Corps, the Human Resources Division of USAID and the
USAID Program Officer who is the chief of local currency management. The
questionnaire was an attempt to determine answers to questions raised
after an inspection of Cenpritec documents and correspondence.

1. Is Cenpritec a Peace Corps or USAID project?
   Ans: Undetermined.

2. What is the working relationship between USAID and the Peace
   Corps?
   Ans: USAID is a funding organization and the Peace Corps pro-
   vides technical assistance. The relationship is very loose and
   somewhat strained due to the PC volunteer's participation in the
   October, 1969, Moratorium Parade in La Paz.

3. Who is legally responsible for Cenpritec?
   Ans: The Bolivian Government through the Board of Directors.

4. Are the Bylaws legal documents?
   Ans: Undetermined.

5. Who determines school policy in absence of active Board?
   Ans: Peace Corps volunteers.

6. To whom are the volunteers responsible?
   Ans: Peace Corps/Bolivia.

7. Do the volunteers have a job description?
   Ans: Yes, established by the Peace Corps Regional Director.

8. Is volunteer technical assistance to Cenpritec vital to renewal
   of USAID's contract with GOB?
   Ans: Yes.
9. With whom do the school instructors have a contract?
   Ans: With the Director of the school.

10. With whom does the school Director have a contract?
    Ans: Undetermined.

11. Who signs the instructor's paychecks?
    Ans: The Director of the school.

12. Who signs the Director's paycheck?
    Ans: He signs his own paycheck.

13. Was the Feasibility Study the work of volunteer Thornton or his appointed committee?
    Ans: Thornton's.

14. Why was the school not funded during calendar year 1968?
    Ans: Construction funds (1967) were not used up because of a work slowdown and the Ministry of Labor did not provide its percentage share.

15. What are USAID conditions for continued school funding?
    Ans: None according to the Peace Corps Director, many according to USAID.

16. Must Bolivia show good faith first before USAID will continue school funding?
    Ans: Yes.

17. Who owns the land upon which Cepnritoc is built?
    Ans: Undetermined.

The United Auto Workers contracted with the Peace Corps to recruit and train experienced blue collar craftsmen for teaching at Cepnritoc and for assisting with technical projects in the field. It was felt that this type of volunteer would have greater success than the "BA Generalist" type of college graduate from which volunteers are usually recruited. This
effort, however, failed and the majority of volunteers (Group 32) were not experienced craftsmen. They all received eight weeks of technical training from the UAW in Detroit before arriving in Bolivia July, 1968. Of the original 20 volunteers in Group 32, only 5 are left after 18 months of a 24 month assignment. Four are single, one is married, all receive 120 dollars per month and live either in La Paz or El Alto. As given in the 1967 Grant Agreement (14), their responsibility is classroom instruction as well as training of Bolivian counterpart instructors.

The Carpentry volunteer not only instructs construction carpentry and form building, but also supervises building construction and cement work on the campus.

The Plumbing volunteer teaches fundamentals of urban and industrial plumbing and also is preparing lesson plans and textbooks. He has two and a half years of architectural engineering.

The Electricity volunteer has the additional task of transporting students to and from La Paz. He has had two years of technical school training and experience as an electronics technician.

There is currently no Peace Corps volunteer instructing Masonry since this is exclusively adobe brick masonry and the Bolivian counterpart instructor is well trained.

The Electronics instructor has a four year college background in Electrical Engineering and two and half years of experience in industry.

There are four Bolivian instructors teaching in the four areas of construction. All, with the exception of one who happened to be a volunteer's landlord, were previously hired to work on the construction of the school buildings and subsequently kept on as instructors. All have satisfactory work experience but none has experience or training as a teacher. There average formal education is sixth grade with the
exception of the electricity instructor who has finished high school and
attended a post high school technical college.

The Bylaws provide no prerequisites for the hiring of instructors
beyond evidence of a satisfactory work experience. The requirement for
previous years of experience has been left blank.

The carpentry instructor receives $b1,200 ($U.S.100) per month, the
plumbing instructor receives $b900 ($U.S.75) per month, the electricity
instructor receives $b1,700 ($U.S.142) per month, the masonry instructor
receives $b1,000 ($U.S.83) per month, the secretary receives $b800 ($U.S.
66) per month and the night watchman receives $b600 ($U.S.50) per month.
Each instructor’s contract calls for a salary of $b1,200 ($U.S.100) per
month but this was altered by action of the Board, January, 1969.

There is no written information regarding the curriculum and how it
was developed. The following was obtained by the author from interviews
with the PC volunteers.

Carpentry:

<table>
<thead>
<tr>
<th>Advisory Committee</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Analysis</td>
<td>No</td>
</tr>
<tr>
<td>Course Outline</td>
<td>None</td>
</tr>
<tr>
<td>Related Information</td>
<td>Related Construction, Plan Reading and Steel Reinforcement.</td>
</tr>
<tr>
<td>Relation to other courses taught at the school</td>
<td>None</td>
</tr>
<tr>
<td>Texts</td>
<td>None</td>
</tr>
<tr>
<td>Teaching Aids</td>
<td>Homemade</td>
</tr>
</tbody>
</table>
Plumbing:

Advisory Committee
No

Job Analysis
Tour of industry and survey of local conditions.

Course Outline
None, course being taught by visiting engineer three days a week.

Related Information
Safety, Unions, Cost Estimating, Plan Reading, Credit.

Relation to other courses taught at the school
Masonry and the joining of cement pipe.

Texts
HOMEMADE by Peace Corps volunteers.

Teaching Aids
Educational Films supplied by USAID.

Electricity:

Advisory Committee
No

Job Analysis
Determined by volunteer and counterpart.

Course Outline
None

Related Information
Power distribution and transformers.

Relation to other courses taught at the school
Plumbing such as the construction of shower head heaters.

Texts
None—writing of text now in progress by volunteer.

Teaching Aids
Homemade such as plywood wiring, boards, also use of USAID films and Regional Technical Assistance library books.

Masonry:

Advisory Committee
No

Job Analysis
Survey of local conditions and advice of counterpart instructor.

Course Outline
No

Related Information
Some carpentry and some masonry both taught by masonry instructor.

Relation to other courses taught at the school
None
<table>
<thead>
<tr>
<th>Texts</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching Aids</td>
<td>None</td>
</tr>
</tbody>
</table>

Table 2. Class Organization

<table>
<thead>
<tr>
<th></th>
<th>Carpentry</th>
<th>Plumbing</th>
<th>Electricity</th>
<th>Masonry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours per day</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Days per week</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Weeks per session</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Class size (no. of students)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum attendance&lt;sup&gt;a&lt;/sup&gt;</td>
<td>3</td>
<td>6</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>Maximum attendance&lt;sup&gt;a&lt;/sup&gt;</td>
<td>9</td>
<td>15</td>
<td>28</td>
<td>12</td>
</tr>
<tr>
<td>Average attendance&lt;sup&gt;a&lt;/sup&gt;</td>
<td>9</td>
<td>10</td>
<td>15</td>
<td>8</td>
</tr>
<tr>
<td>Maximum limit</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>Ratio-theory to practice</td>
<td>20-80</td>
<td>30-70</td>
<td>15-85</td>
<td>20-80</td>
</tr>
<tr>
<td>(percentage)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grading system</td>
<td>pass-fail</td>
<td>pass-fail</td>
<td>pass-fail</td>
<td>pass-fail</td>
</tr>
<tr>
<td>Testing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>None</td>
<td>Written</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Post-test</td>
<td>Oral</td>
<td>Written</td>
<td>Written</td>
<td>None</td>
</tr>
</tbody>
</table>

<sup>a</sup>Since November, 1968.
Table 3. Student statistics (Day Classes)

<table>
<thead>
<tr>
<th>First term day class</th>
<th>Second term day class</th>
<th>Third term day class</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Nov. 1-Feb. 14)</td>
<td>(April 1-June 27)</td>
<td>(Aug. 15-Nov. 28)</td>
</tr>
<tr>
<td>EMPCE</td>
<td>EMPCE</td>
<td>EMPCE</td>
</tr>
<tr>
<td>E</td>
<td>M</td>
<td>P</td>
</tr>
<tr>
<td>30</td>
<td>38</td>
<td>23</td>
</tr>
<tr>
<td>15</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>20</td>
<td>23</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Age upon entering

<table>
<thead>
<tr>
<th>Maximum</th>
<th>Minimum</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>10</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>12</td>
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</tr>
<tr>
<td>12</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>12</td>
<td>9</td>
<td>12</td>
</tr>
</tbody>
</table>

### Prior school (yrs.)

<table>
<thead>
<tr>
<th>Maximum</th>
<th>Minimum</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>11</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

### Number of students listing the following as work experience

<table>
<thead>
<tr>
<th>Student</th>
<th>EMPCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laborer</td>
<td>14</td>
</tr>
<tr>
<td>Mechanic</td>
<td>2</td>
</tr>
<tr>
<td>Business</td>
<td>2</td>
</tr>
<tr>
<td>Helper</td>
<td>11</td>
</tr>
<tr>
<td>Army</td>
<td>2</td>
</tr>
<tr>
<td>Baker</td>
<td>2</td>
</tr>
<tr>
<td>Tailor</td>
<td>2</td>
</tr>
<tr>
<td>Electrician</td>
<td>4</td>
</tr>
<tr>
<td>Masonry</td>
<td>3</td>
</tr>
<tr>
<td>Farmer</td>
<td>3</td>
</tr>
<tr>
<td>Unemployed</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous b</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
</tr>
</tbody>
</table>

### Students supplied by the Chamber of Construction

<table>
<thead>
<tr>
<th>EMPCE</th>
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</thead>
<tbody>
<tr>
<td>2</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

\[a\] E=Electricity, M=Masonry, P=Plumbing, C=Carpentry.

\[b\] Miscellaneous--no two alike.
Table 4. Student statistics---Electronics

The second term day class included a course in basic electronics

21 Students

<table>
<thead>
<tr>
<th>Age on entering</th>
<th>Prior education (years)</th>
<th>Prior work experience by numbers of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum</td>
<td>33</td>
<td>12</td>
</tr>
<tr>
<td>Minimum</td>
<td>16</td>
<td>1/2</td>
</tr>
<tr>
<td>Average</td>
<td>21</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 students</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 electricity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 miscellaneous*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 unemployed</td>
</tr>
</tbody>
</table>

The third term day class included two electronics courses:
one basic and one accelerated

Electronics, Basic 12 Students

<table>
<thead>
<tr>
<th>Age on entering</th>
<th>Prior education (years)</th>
<th>Prior work experience by numbers of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum</td>
<td>25</td>
<td>12</td>
</tr>
<tr>
<td>Minimum</td>
<td>17</td>
<td>8</td>
</tr>
<tr>
<td>Average</td>
<td>21</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9 students</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 unemployed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 miscellaneous</td>
</tr>
</tbody>
</table>

Electronics, Advanced 4 Students

<table>
<thead>
<tr>
<th>Age on entering</th>
<th>Prior education (years)</th>
<th>Prior work experience by numbers of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum</td>
<td>25</td>
<td>12</td>
</tr>
<tr>
<td>Minimum</td>
<td>19</td>
<td>6</td>
</tr>
<tr>
<td>Average</td>
<td>22</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 students</td>
</tr>
</tbody>
</table>

*Miscellaneous--no two alike.
Table 5. Student statistics (Night Classes)

<table>
<thead>
<tr>
<th></th>
<th>First term night class (April 1-Aug. 15/69)</th>
<th>Second term night class (Oct. 20-Mar. 20/70)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>E&lt;sup&gt;a&lt;/sup&gt;</td>
<td>P</td>
</tr>
<tr>
<td>Age upon entering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>37</td>
<td>14</td>
</tr>
<tr>
<td>Minimum</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Average</td>
<td>22</td>
<td>27</td>
</tr>
<tr>
<td>Prior school (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Minimum</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Average</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Number of students listing the following as work experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Clerk</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Mechanic</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Tailor</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Laborer</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Plumber</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Helper</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Business</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Mason</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Carpenter</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>14</td>
</tr>
<tr>
<td>Students supplied by the Chamber of Construction:</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<sup>a</sup>E--Electricity, P--Plumbing, C--Carpentry, E<sub>e</sub>--Electronics.

<sup>b</sup>Miscellaneous--no two alike.
Table 6. Graduation statistics from November, 1968, until October, 1969

<table>
<thead>
<tr>
<th>Class</th>
<th>Number entered</th>
<th>Number graduated</th>
<th>Per cent graduated</th>
</tr>
</thead>
<tbody>
<tr>
<td>First term (day)</td>
<td>44</td>
<td>28</td>
<td>64</td>
</tr>
<tr>
<td>Second term (day)</td>
<td>68</td>
<td>31</td>
<td>45</td>
</tr>
<tr>
<td>Third term (day)</td>
<td>65</td>
<td>46</td>
<td>70</td>
</tr>
<tr>
<td>First term (night)</td>
<td>58</td>
<td>18</td>
<td>31</td>
</tr>
<tr>
<td>Second Term (night)</td>
<td>60</td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>Rural class</td>
<td>38</td>
<td>20</td>
<td>53</td>
</tr>
<tr>
<td>Total</td>
<td>333</td>
<td>173</td>
<td>52</td>
</tr>
</tbody>
</table>

Admission requirements have been altered from those stated in the Recruitment Brochure (2) to the attainment of age 16 and nothing more. Tuition has been lowered from $b15.00 ($b12.00 = $U.S.1.00) per month to $b10.00 per month for day students and $b5.00 per month for night students. The beginning of the first term was delayed from November 4, 1968, to November 11, 1968, in an attempt to recruit students. Students supplied and financially supported in part by the construction firms dropped to zero within the first year of school operation.

Follow-up study--graduates

During the fall of 1969, the Peace Corps instructors conducted a follow-up survey of graduates of the first two day classes and the first night class, a total of 77 students. They obtained a 46 per cent return on their questionnaires. Forty-one graduates were in electricity, 20 in plumbing, 5 in construction carpentry and 11 in masonry. There is no
information on the number of respondents by trade, but the total numbers in carpentry and masonry are too small to present much validity.

Follow-up questionnaire—November, 1969 (7)

1. Before studying at Cenpritec, how many students were already working in the field they chose to study?

<table>
<thead>
<tr>
<th>Electricity</th>
<th>Plumbing</th>
<th>Construction Carpentry</th>
<th>Masonry</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 per cent</td>
<td>20 per cent</td>
<td>25 per cent</td>
<td>80 per cent</td>
</tr>
</tbody>
</table>

2. Before studying at Cenpritec, how many students worked for construction firms?

<table>
<thead>
<tr>
<th>Electricity</th>
<th>Plumbing</th>
<th>Construction Carpentry</th>
<th>Masonry</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 per cent</td>
<td>20 per cent</td>
<td>50 per cent</td>
<td>65 per cent</td>
</tr>
</tbody>
</table>

3. After studying at Cenpritec, how many students returned to their former employer?

<table>
<thead>
<tr>
<th>Electricity</th>
<th>Plumbing</th>
<th>Construction Carpentry</th>
<th>Masonry</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 per cent</td>
<td>80 per cent</td>
<td>50 per cent</td>
<td>35 per cent</td>
</tr>
</tbody>
</table>

4. How many students are actually working in their area of specialization (after graduation)?

<table>
<thead>
<tr>
<th>Electricity</th>
<th>Plumbing</th>
<th>Construction Carpentry</th>
<th>Masonry</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 per cent</td>
<td>35 per cent</td>
<td>45 per cent</td>
<td>65 per cent</td>
</tr>
</tbody>
</table>

Conclusions

With the exception of masonry, Cenpritec is not building upon existing skills since the majority worked at some other trade prior to school entry.

Even though masonry and construction carpentry contributed the majority of students, most switched to a study of plumbing or electricity.

The majority of students did not return to their previous employer.
With the exception of masonry, the majority of graduates are working in areas outside their field of specialization.

A further follow-up study performed by the Peace Corps advisor determined the following percentages of unemployed graduates: (9)

<table>
<thead>
<tr>
<th>Electricity</th>
<th>Plumbing</th>
<th>Construction</th>
<th>Carpentry</th>
<th>Masonry</th>
</tr>
</thead>
<tbody>
<tr>
<td>71 per cent</td>
<td>60 per cent</td>
<td>50 per cent</td>
<td>33 per cent</td>
<td></td>
</tr>
</tbody>
</table>

A conference was held on July 11, 12 and 13, 1969, in Sorata, Bolivia, that included instructors, Board members, Peace Corp advisors and interested USAID officials. The purpose of the meeting was to discuss current difficulties and future goals. Items discussed were as follows (taken from loose notes):

a. agreement of the Chamber of Construction to give all interested workers the provision to leave work one-half hour early with pay in order to attend school. Also to begin building a voluntary fund for worker scholarships.

b. agreement of the building contractors to permit students to visit their construction sites.

c. decision to try to form a commission to collect a percentage of taxes to pay housing costs of students and to try to establish a savings and loan for student funds.

d. to affect a manpower study with the cooperation of UMSA, IBEAS, and the General Director of the Census to determine the number of workers in local contracting firms, the number of workers affiliated with contracting firms, the number of specialists that exist in the construction field, and the number of specialists that desire to improve their skills.

e. to affect publicity of Cenpritec by means of bulletins and folders.
f. to study with the Board of Directors the possible widening of school programs and possible directions for future growth.

g. to have a group of instructors visit construction sites to spread knowledge of the school, to determine those branches of study that interest workers, and to discuss the new school hours.

h. to have Cenpritec graduates participate in the work of public institutions.

i. to hire technicians and experts for the purpose of improving instruction at Cenpritec by updating materials and methods.

j. to distribute copies of the teaching programs to contractors and other prospective students.

k. to promote annual meetings to determine the success of graduates in finding employment.

l. to reaffirm the original objectives of Cenpritec.

m. to add welding as a complement to the existing courses but to offer advanced welding only after a feasibility study.

Up to the present time, no action has been taken on any of these proposals.

**Physical plant**

Physical plant construction began shortly after the signing of the May, 1967, Grant Agreement and started with building a wall around the grounds. The purpose of this wall was for security of equipment and supplies. Also, the classroom plans were undergoing a revision by a committee of the Board of Directors at the time, and it was necessary to begin work immediately.
The erection of buildings and walls was to have been a self-help project with USAID funds being used for materials only. While working on the school, laborers sent by the Chamber of Construction would be given updated training in masonry and carpentry skills by the volunteers. The neighborhood community of El Alto was to provide free building supplies and labor.

Only 12 workers of an estimated 25-30 were obtained from the Chamber and 4 of these appeared near its completion. Promises from the community failed to materialize when their spokesman was unable to gain representation on the Board of Directors. (3)

Initial estimates of the school's official opening were as early as November, 1967— one year before the actual opening date. Workers were ultimately hired to perform the construction and use was made of the new volunteers that arrived in July, 1968.

Early correspondence (12) indicates that the school's location in El Alto was selected by volunteer Thornton in an attempt to serve both the construction workers of the city and the rural peasants of the high plain.

An inspection of the area which is ten miles from and 2,000 feet above La Paz shows it to be inappropriate as a location for a school to upgrade the skills of construction workers of the city. Students from the city must travel up to ten miles to attend classes. Cenpritec advertisements include offers of free transportation; however, the percentage of city construction workers attending the school is less than twenty.

The title to the ground upon which the buildings have been erected is currently involved in litigation, and its ownership at this time is unclear. The land was initially given to the Chamber of Construction by the City of La Paz until Cenpritec was organized as a legal entity. It now appears that the City never had clear title to the land. (8)
With the exception of electricity, of insufficient power for the
collectors donated by Tools for Freedom, the land was unimproved. A 30-
foot well dug on the site proved to be dry much of the time, and water
had to be trucked in for the cement work on the playing field. An outdoor
toilet had to be erected because of a lack of water for the urinals and
flush toilets. A septic tank provides sanitary facilities, and the school
has its own water storage tank.

Initial plans for the school were drawn by the La Paz City Architect,
Mr. Santos, in collaboration with Eliodoro Flores, School Director, and
PCV's Colvin and Cooney. The actual school layout bears little resemblance
to the initial plans.

Two buildings, surrounded by a high adobe wall, provide facilities
for instruction in the four basic areas of masonry, carpentry, plumbing
and electricity. These buildings also provide for a library-office,
Director's office and drafting room. The night watchman and his family
are housed in separate facilities, the kitchen of which is used by the
night watchman's wife for preparation of meals for faculty and students.

Just completed is a concrete playing field that can be used for a
variety of sports.
Highway La Paz--Oruro

Numbered arrows indicate the angle at which the photos were taken.

Figure 1. Sketch of physical plant layout.
Figure 2. Plumbing and electricity.

Figure 3. Carpentry and office.
Figure 4. Electricity.

Figure 5. Masonry practice.
Figure 6. Water well.

Figure 7. Volley ball.
Figure 8. Drafting and lecture.

Figure 9. Plumbing storage.
Figure 10. Office file.

Figure 11. Plumbing work area.
Figure 12. Practice installation.

Figure 13. Carpentry.
Figure 14. Water well.

Figure 15. Caretaker quarters and playing field.
Figure 16. Masonry practice.

Figure 17. South gate.
Figure 18. Airport highway.

Figure 19. Office.
CHAPTER V
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary of the problem and procedures

This study deals with a vocational school for construction workers located in El Alto, La Paz, Bolivia. This school is called El Centro Privado de Formación Tecnica y Artesanal and provides training in the areas of electricity, plumbing, carpentry and masonry.

The purpose of the study was to provide the necessary background material for the author's preliminary evaluation of the school's ability to meet its stated objectives.

With the permission of all officials involved in the operation of the school, a two month investigation was carried out between September 15, 1969 and November 15, 1969.

This investigation had the following objectives:

1. To ascertain the history and background of the establishment of the school, its objectives and organization. To determine the curriculum and the research leading to its development. To obtain a statistical analysis of the faculty and student body.

2. To supply information to be used as the basis for recommendations regarding school curriculum, organization, student placement, materials and equipment.

To facilitate the study, all available literature was reviewed including, school records, correspondence and legal documents. Interviews were conducted with school officials and representatives of the cooperating agencies.
Summary of the findings

Although the majority of procedures regarding school funding, organization and maintenance were clearly outlined in the various legal papers, actual school operation bore little resemblance to this plan. The reasons for this are as follows:

1. Lack of a centralized file of all school papers and correspondence that is readily available to all school personnel.
2. Lack of adequate communications between officials of USAID and the Peace Corps/Bolivia.
3. Persistence of Peace Corps/Bolivia officials in taking a "felt need" approach to the administration of Cenpritec.
4. Confusion among everyone concerned regarding specific areas of responsibility.
5. Lack of Bolivian participation at all levels of school operation.
6. Inactivity and apathy on the part of the Board of Directors.

Cenpritec experienced difficulty in recruiting students of any kind during its first year of operation and failed 52 per cent of those admitted. Attempts to increase enrollment were supplemented by eliminating literacy requirements and lowering tuition payments by 50 per cent. Difficulties in class instruction were the result of the following.

1. Inadequate state-side preparation of the Peace Corps volunteers.
2. Incompetence of some of the Bolivian counterpart instructors.
3. Inappropriateness of the course content and lack of relationship to other courses taught at the school.
4. Matriculation of students with poor aptitude for the study involved.
5. Lack of appropriate audio-visual materials and teaching aids.

However, small size of the classes provided good opportunity for individual instruction and the emphasis was upon practical hand work rather than theory. Older students tended to take classes in masonry and plumbing while younger better educated students took classes in electricity and carpentry. The prior work experience of all students was varied. The majority of electricity students had no previous work experience and were listed as former students.

Although the purpose and intent of Cenpritec was to augment the training of workers already employed in the field, the number of such students recruited by the construction unions dropped from ten to zero within the first year.

Valiant attempts by the Peace Corps advisor to conduct a follow-up study of Cenpritec graduates were complicated by difficulties in constructing an instrument simple enough to be self administered and by difficulties in locating the graduate whether by mail or in person.

An attempt at a mid-year school evaluation resulted in a general conference that was poorly attended by Bolivian representatives. No action was taken on the recommendations.

A well constructed physical plant has been built in El Alto on the highway to the La Paz airport. Shops and classrooms have been provided for the four construction disciplines and are adequately supplied with tools and materials. The buildings are surrounded by a high wall and have the protection of a night watchman. Space has been provided for the Administrator's office and a combination library-secretarial office. An all purpose concrete athletic playing field has been added. Sanitation facilities are modern and function when there is adequate water. The continuing operation of the school's utilities and equipment is a
monumental testimony to the ingenuity of the Peace Corps volunteers.

The location of the school is well suited for the illiterate unskilled laborers that live in the high plain surrounding La Paz but it is too far from the city center to be attractive to construction workers that are employed there. The title to the ground upon which the school is built is in question and has been since its supposed donation by the city of La Paz to Cenpritec in 1966.

Conclusions

The data gathered and analyzed in the study warrant the following conclusions regarding the efficacy of Cenpritec as a viable institution for the training of construction workers in Bolivia:

1. Difficulties of major proportions in the organization and administration of the school pose a need for a re-examination of its underlying principles and basic methods of operation.

2. The application of a "felt need" approach to Cenpritec has resulted in an administrative policy that is not conducive to the operation of an educational institution.

3. Confusion regarding roles to be played by the Peace Corps and USAID in relation to the Bolivian counterparts has been the result of insufficient importance being placed upon the school's organizational papers and legal documents.

4. Lack of Bolivian participation at all levels of school operation suggests a lack of interest on the part of the government, industry, and labor from the very beginning.

5. The successful operation of an educational institution like Cenpritec requires the full attention of the Board of Directors. This Board is essential in establishing policy and exercising discretionary powers.
6. A successful transfer of teaching responsibilities from Peace Corps advisors to native instructors requires that both parties be represented by fully competent individuals.

7. Hesitation of contractors to hire Cenpritec graduates can be attributable in part to subject matter content that is not meaningful.

8. The presence of students in classes not designed to upgrade their level of skill suggests a need for vocational guidance.

9. Recalcitrance on the part of experienced laborers from the city to attend classes at Cenpritec to improve their skills stems from the remote location of the school and an unwillingness by the contractors and the unions to give them any incentive.

Recommendations

The following recommendations are based upon a careful analysis of the data, suggestions of concerned officials, a comparison with methods of American school operation and a concern for the strict adherence to all legal and administrative documents.

1. Withhold further USAID funding until a firm financial commitment is obtained from the Bolivian Ministry of Labor. The United States should not be expected to fund the school forever and neither should the Peace Corps officials be expected to continue to make personal pleas to Bolivian sources for delinquent payments.

2. Withhold further USAID funding until Cenpritec has the legal ownership of the ground upon which it is built. Indecision on ownership of the land could bring up a question of ownership of the buildings and equipment.

3. Form a joint USAID-Peace Corps committee at the program director
level to establish guidelines with regard to:

a. criteria for continued school funding.

b. exact volunteer job description.

c. the inter-relationships and roles of USAID and the Peace Corps in school operation.

d. an annual conference for school evaluation.

e. providing the school with continuing supervision in spite of personnel turn-over.

4. Provide the necessary constitutional amendments to ensure vigorous and continued activity by the Board of Directors and the removal of inactive members. Among the Board's first duties should be:

a. a review and revision of all documents relating to the school regarding their accuracy, adequacy and legality.

b. a call for an audit of all financial accounts.

c. adoption of measures to ensure active participation of all members.

d. a complete vote of confidence to the present Administrator or else a dismissal.

e. an establishment and utilization of a rating form for the evaluation of the Administrator's effectiveness in the discharge of his duties.

f. initiation of plans for the long-range evaluation of the school's effectiveness in training construction workers that are able to obtain satisfactory employment in their chosen field.

5. Print all documents, after their review and revision by the Board, in both Spanish and English. This should include the minutes
of all Board meetings. These papers should be widely read and discussed at all faculty meetings.

6. Include in the training of replacement volunteers information on Cenpritec's background, legal documents, finance and organization. They must give attention to the whole aspect of school operation in conformance with its binding papers as much as to the organization of specific classes.

7. Effect a methodical and unbiased evaluation of all staff members by the Administrator with Peace Corps assistance. This evaluation should use rating forms that would be ultimately reviewed by the Board for their action on continued employment and salary adjustments.

8. Release any Peace Corps volunteers from nonteaching assignments and instead initiate a service for vocational guidance and job placement.

9. Give the Administrator and the Peace Corps advisor released time to establish an advisory committee to assist the instructional staff in providing current course content.
BIBLIOGRAPHY


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