

PD-RAFQ-009
ISN: 36760

UNCLASSIFIED
CLASSIFICATION

PROJECT EVALUATION SUMMARY (PES) - PART I

Report Symbol: U-447

1. PROJECT TITLE <u>Proj # 5980622</u> TRAINING OF HONDURAN ELECTRICIANS & MECHANICS IN THE U.S.			2. PROJECT NUMBER <u>LAC 0622-C-00-3044-00</u>	3. MISSION/AID/W OFFICE <u>AID/HONDURAS</u>
5. KEY PROJECT IMPLEMENTATION DATES			4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY)	
A. First PRO-AG or Equivalent FY <u>82</u>	B. Final Obligation Expected FY <u>83</u>	C. Final Input Delivery FY <u>84</u>	<input type="checkbox"/> REGULAR EVALUATION <input type="checkbox"/> SPECIAL EVALUATION	
6. ESTIMATED PROJECT FUNDING			7. PERIOD COVERED BY EVALUATION	
A. Total \$ <u>281,751.77</u>			From (month/yr.) <u>January 1983</u>	
B. U.S. \$ <u>251,751.77</u>			To (month/yr.) <u>August 1984</u>	
			Date of Evaluation Review	

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

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
Follow-up with project participants to assure the desired multiplier effect.	R. Martin	August, 1985

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

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS (If appropriate (Name and Title))		12. Mission/AID/W Office Director Approval	
Marcia Bernbaum, Project Officer, AID/Honduras		Signature _____	
Humberto Leon, CADERH/Honduras		Typed Name _____	
Allan Greenberg, Creative Associates, - Evaluator		Anthony J. Cauterucci	
Ned Van Steenwyk, AID/Honduras, - Evaluator		Date <u>11/21/84</u>	

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13. Summary

The project began during FY82 and was completed on May 31, 1984. In this pilot project for technical training in the U.S., 24 Honduran electricians and mechanics, two-thirds line supervisors from private sector firms and one-third from Honduran training centers, received skill upgrading in technical, supervisory, and pedagogical skills through a contract with Miami Dade Community College. Upon returning to Honduras the participants were to instruct their co-workers and students in what they had learned, thereby achieving a multiplier effect for the project.

An evaluation based on efficiency criteria concluded that the project showed both accomplishments and incomplete results.

The accomplishments observed are the following:

(1) From the standpoint of training expectations manifested by both trainees and supervisors, the program was a success in three training areas: electronics, supervisory skills and pedagogical skills.

Training expectations were not met in mechanics. In this area, the initial curriculum design was not followed. The adoption of a locked-step approach, rather than individualized training, required more time than anticipated. Trainees in mechanics had to return to Honduras before completing their training.

(2) Significant learning took place in the four areas of training. In the case of electronics, trainees reported having mastered more skills than they had initially anticipated.

(3) New skills mastered, for which there is applicability in Honduras, have improved the job performance of project participants and the impact of the training is beginning to be observed in the field.

The incomplete results observed are the following:

(1) As a result of weak assessments of training needs and the use of group rather than individualized learning strategies, 26% of the technical skills mastered appear to have no current or anticipated applications in Honduras. This situation is more serious in the area of industrial electronics than in mechanics.

(2) The pedagogical skills training received was very traditional. Similar training could have been provided in Honduras at a fraction of the cost.

The evaluation concluded that the multiplier effect has been achieved by participants from training centers as they pass on the new skills they have learned to their students. For industrial participants to do the same, however, the Mission must consider providing additional support and follow-up.

14. EVALUATION METHODOLOGY

This was a final evaluation of the project. An effort was made to resolve differences of opinion regarding the project's accomplishments through the use of independent contractors who were not involved in the design or execution of the project.

Interviews with project participants and their supervisors were conducted eight months after the participants had returned to Honduras. A questionnaire was developed to address the following issues:

(1) What were the training expectations of the participants and their supervisors, and to what extent were these expectations met?

(2) The identification of specific improvements in skills and knowledge which could be attributed to the training received.

(3) The identification of training programs which have been conducted for achieving the project's multiplier effect.

(4) Suggestions from project participants and their supervisors for improving future projects of this type.

Project participants and their supervisors were interviewed in their places of work during August of 1984. Two independent contractors conducted the interviews, tabulated the data, and analyzed the results for the preparation of this report. Related project documents and Miami Dade Community College's Final Report were also used for evaluating the project.

15. EXTERNAL FACTORS

Three of the project's 16 private sector participants (19%) are no longer employed by the firms which sponsored their training. One returned to the U.S. to continue his education on the university level, one was fired from his job, and another firm went out of business.

16. INPUTS

A. Total Costs

Direct and indirect costs of about \$280,000 or \$11,670 per participant were incurred.

(1) USAID Direct Costs were \$251,751.77, or about \$10,500 per participant for three months of training.

Direct costs per participant hour of instruction were \$17.50 as compared to \$1.30 to \$6.00 for established training centers' individualized, open entry-exit instruction in the U.S., and about \$2.10 per participant hour with INFOP in Honduras.

Concern must be expressed over the high training costs of this project. Future projects of this type should study the alternatives suggested later in this report for reducing instructional costs.

(2) Indirect Costs

Employers of the project participants paid three months salary to employees while they were studying in Miami, about \$30,000 for the 24 participants. Also some of the establishments made sacrifices in maintenance and production, while key personnel were away from the firm for three months.

The Honduran Advisory Council on Human Resource Development (CADERH) volunteered the time of its members for reviewing the project's request for proposals, analyzed the proposals, pre-selected candidates for participation, and helped monitor the project's execution.

B. Other Inputs

The project consisted of five phases, beginning with the pre-selection of candidates for receiving training. This was done by USAID/Honduras and CADERH. Miami Dade Community College was then contracted for designing and executing phases II through V of the project.

Phase II focussed on the selection of participants with individual needs assessments for determining the training needs of each participant. These needs assessments were based on an analysis of the job performance requirements for each candidate. The Impact Evaluation of the project, however, suggests that the needs assessments did not always provide the information required for preparing individualized training modules. This was reinforced by 26 percent of the technical

skills mastered not having current or future applications in Honduran industry according to project participants and their supervisors. Similarly, the Miami Dade Community College Final Report noted that the needs assessments did not adequately measure the actual skill levels of participants.

Phase III involved the preparation of individualized training modules for training the 24 project participants and Phase IV was devoted to training these participants. Most of the training expectations of both trainees and supervisors were met, and trainees reacted favorably to the experience. However, the weaknesses of the needs assessments and the difficulties Miami Dade Community College had in providing individualized instruction resulted in the implementation of curricula which were not always appropriate for all participants and a failure to meet some of the training expectations of others.

Phase V focussed on evaluating the project participants in Honduras and assisting them in achieving the multiplier effect for the project. It was during this phase that it became evident that the multiplier-effect was being realized by participants from training institutions but not by participants from the private sector.

17. OUTPUTS

15 participants from private sector industry, 8 participants from the National Institute of Vocational Training (INFOP), and one participant from a PVO training center received instruction in the U.S. in industrial mechanics, industrial electronics, supervisory and pedagogical skill areas.

Project participants and supervisors were interviewed and their responses in regard to training expectations were validated by the training contracts which each participant had signed with Miami Dade Community College.

Of the four training areas, supervisory training had the best over-all match between training expectations and the skills actually mastered by participants (74%), with 86% of these skills having immediate or anticipated applications in Honduras.

While 82% of the training expectations were met in industrial electronics, and improved scores on electronic post-tests also indicated that significant learning had taken place, 29% of the skills mastered have no immediate or anticipated applications according to the project participants and their supervisors.

Industrial mechanics training experienced difficulties because of a need to change instructional personnel during the project and the failure to complete the program's curricular outline. As a consequence, 66% of the training expectations of participants and their supervisors were not met. Additional and unanticipated skills, however, were mastered with 84% of these skills having current or anticipated applications.

In pedagogical training, 75% of the anticipated skills were mastered and 86% of the skills mastered have current or anticipated applications in the establishments of the participants. But the type of instruction provided was very traditional, and similar instruction could have been provided in Honduras by local institutions (INFOP, Ministry of Education, or the Normal Schools).

18. PROJECT PURPOSE

The training had two major objectives:

-Upgrading the technical and supervisory skills of the participants through a combined program of hands-on and on-the-job training.

-Exposure to U.S. firms with characteristics similar to those in which the participants were employed, for demonstrating U.S. technological and supervisory systems.

The first objective was met with most of the training expectations of the projects participants and their supervisors being realized in electronics, supervisory, and pedagogical training. Two weeks of on-the-job training, however, were cut short by the Thanksgiving weekend holiday and by preparations for returning to Honduras. Project participants and their supervisors indicated that more emphasis on U.S. in-plant training experiences would be desirable for future projects of this type.

19. GOALS/SUBGOALS

A major subgoal of the project was to meet local industries' training needs by achieving a multiplier effect, with project participants providing instruction to their co-workers and students upon returning to Honduras.

The multiplier effect is being achieved with project participants from vocational training institutions as they

instruct their students, but they have not shared their new skills with their training colleagues. Much less is being done by private sector industrial participants. In order to achieve the multiplier effect, it will be necessary to plan and finance follow-up activities for assuring that project participants obtain the resources and required support for organizing instructional programs for their co-workers. The financing needed for the follow-up activities indicated in the evaluation is approximately L.55,000.

20. BENEFICIARIES

The training has resulted in specific skill improvements being noted by the project participants and their supervisors.

21. UNPLANNED EFFECTS

The project has called attention to the importance of individualized instructional strategies and needs assessments for meeting specific training needs in Honduras. This will reinforce the efforts of USAID/Honduras and CADERH in encouraging and adapting occupational certification systems and competency based instructional strategies for preparing vocational training students and industrial workers for certification in their trades.

22. LESSONS LEARNED

A. Small and medium size businesses have difficulty participating in projects of this type because they cannot pay salaries to participants over a three month period while employees are not contributing to the productivity of the firm. There is also a fear that once that employees are trained they will seek employment in higher paying positions in other establishments. As a result, this project could not recruit participants from smaller firms (88% of the private sector participants were from large industries, the average number of employees of the participating businesses was 900, 44% were from transnationals, and over one third from industries owned by the same transnational corporation).

Training programs of this nature are more appropriate for large businesses, transnationals, and vocational training centers. Large Honduran businesses and transnationals, however, usually have established human resource development programs.

It should be questioned whether USAID should be funding training for these institutions when they can often afford to do so on their own. Future projects should consider requesting that larger businesses make a more significant contribution towards financing direct training costs.

B. While the funds used for this project were available only for financing training in the U.S., the evaluator suggests that it would be more cost-effective to use host country training resources and complement these resources with equipment, curricular materials, and instructors for providing more specialized instruction which is not currently available in Honduras. This would allow for more flexibility in organizing courses and allow more participation on the part of small and medium sized businesses.

If there is sufficient demand for the type of training provided by this project and if there is a marked preference for providing this training in the U.S., a larger contract with a U.S. based institution could provide this training on an ongoing basis for all Latin American USAID missions with savings as economies of scale are realized.

The evaluator has also suggested another alternative which he believes could be more practical and more cost-effective over the long term: establishing a USAID training institute for assuring that all curricular and logistical matters meet the specific vocational training needs of Latin America. This institution could also train vocational instructors in state-of-the-art instructional strategies, provide much of the technical assistance requested by missions in vocational areas, and serve as a distribution center for Spanish language curricular materials.

C. Individualized, open entry-exit training strategies appear to be more appropriate and cost-effective than traditional, locked-step instruction for meeting the specific training needs for industries in Honduras.

D. When institutions are contracted for providing this type of training or related technical assistance in vocational training activities, an on-site visit should be made to determine the extent to which the institution can provide the specific services desired.

E. The project design and the efforts of Miami Dade Community College were not sufficient for guaranteeing that a multiplier effect for the project would be achieved. Training

centers seem to have the best chance of realizing this effect as instructors pass on the new skills learned to their students. For private sector participants it may be necessary to include provisions which would require that participating industries and participants repay the cost of the training if they do not achieve a multiplier effect within a specified time after the termination of the initial training of participants.

But one must also be aware of the inherent limitations of conducting in-plant training in smaller businesses and industries. It is difficult to realize economies of scale and most often would be more cost-effective to do skill upgrading for employees of small and medium size businesses in institutions like INFOP.