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FINAL REPORT/EVALUATION

FUNDAMENTAL EDUCATION AND SKILLS TRAINING PROJECT

GOES--AID/ES 519-15-670-170

San Salvador, May 1978

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TRANSMITTAL MEMORANDUM

TO : Dr. Raymond A. San Giovanni, Chief, Education Division  
FROM : G. E. Mendez, Non-Formal Education Planning Advisor  
SUBJECT: Final FESTP Report/Evaluation  
DATE: May 15, 1978

I am submitting herewith the final report and evaluation of the Fundamental Education and Skills Training Project. This report is essentially an update of the last quarterly report submitted in January, 1978, where preliminary data on project outcomes were presented.

## I. SUMMARY

### A. The Problem

The Fundamental Education and Skills Training Project (FESTP) was conceived following two sets of considerations; namely, socio-economic conditions highlighted by a problem of unemployment and under-employment, and an apparent lack of significant manpower training programs.

Socioeconomic indicators in 1975 showed that unemployment was high in urban areas (18%) and critical in rural areas during no-harvest season (40%); marginal occupations (not classified under ILO indexes) were proliferating in urban areas mainly as a result of a labor force shifting from agricultural/rural activities and into urban/marginal activities; 50,000 individuals were entering the labor force, most of whom were unskilled (68%); and there was structural industrial unemployment (EAP growth rate of 3.4% exceeded a labor absorption growth rate of 2.9%).

On the other hand, AID sponsored studies disclosed that the existing manpower training programs were very modest in quantitative and qualitative outputs, and that there was a lack of coordination and articulation between the programs. Of the programs studied, the Accelerated Apprenticeship Program of the Ministry of Labor, and the Occupational Skills Training Program of the Ministry of Education, seemed to be the most promising in terms of human and physical infrastructure for improvement and expansion.

AID officers decided to assist the Ministry of Education (MOE) in improving their Occupational Skills Training Program (OST) through a grant funded pilot project. A closer assessment of the OST revealed that demand for its courses, as evidenced by high initial enrollment levels, was good, but retention and completion rates were poor, and interest for courses declined rapidly. Moreover, the MOE was not supporting the OST with appropriate levels of funding, and in addition, resources in general were poorly utilized, and evaluation and planning were virtually non-existent.

Accordingly, the pilot project, Fundamental Education and Skills Training Project (FESTP), was designed to help MOE Adult Education, central, regional, and school administrators plan, execute, and evaluate a system of skills training courses that would contribute more efficiently toward meeting quantitative and qualitative demands for training by poor, unskilled Salvadorans.

### B. The Project

The two year grant funded FESTP focused on developing systems and procedures to identify real needs for training; to develop

relevant courses; and to train personnel to deliver and monitor courses. An occupational guidance system was also developed to help students choose courses appropriate to their needs and means, and to seek productive employment or self-employment. U. S. technical advisors were provided in each of these areas, and ten Salvadorans were sent to the U. S. for 5 months of participant training. Instructors and principals received in-service training; funds for teaching/demonstration equipment, and some expendable materials were provided.

### C. The Results

#### Course Development

Thirty-six new courses were developed during the life of the FESTP; of these, twenty-one are being delivered. Fifteen courses are not being delivered as more and new equipment is needed. All these courses were designed following information gathered through occupational surveys and analysis of 12 occupational tracks. Thus, these courses correspond to real needs for training and their contents reflect job performance requirements in the labor market. With a minimum of effort, the thirty-six courses can be subdivided into smaller, highly specific, minicourses, which would give the OST program of the MOE a good stock of courses to cover a wide array of training needs at the semi-skilled level.

#### Personnel Training

Four regional supervisors received continuous in-service training; of them, two were sent to the U.S. for participant training. Fifty-four instructors received approximately 350 hours of in-service training; two master instructors were sent to the U.S. for participant training. Fifteen principals received about 100 hours of in-service training; two were sent to the U.S. for participant training. Two curriculum design, and two materials production technicians were also sent to the U. S. for participant training.

Eventhough considerable FESTP resources were invested in personnel training, the size and the quality of the central and regional staff of the MOE's Adult and Permanent Education Division is not sufficient to sustain an improved and expanded OST program. Technical units in curriculum planning and instructional design, materials production, personnel development, guidance, and community education, ought to be created. Administrative units in general services (commodity acquisition, handling, and maintenance, book keeping/controlling), personnel administration, and contract administration are critically needed.

#### Occupational Guidance

An

/occupational guidance system consisting of occupational information gathering and dissemination, student selection/orientation

job information, and self-employment promotion was developed. Inventories of community establishments were completed; major employer contacts were established; job information banks were developed at most schools, and two regional occupational surveys were conducted.

Of the 13 schools participating in the FESTP only 8 were able to fully absorb and use the guidance system and procedures. The rest of the schools lack one or two of the elements of the guidance system. It is necessary to support this area more strongly; more in-service training of school principals is needed, and more monitor time should be assigned to ensure that all schools develop this vitally important student service.

#### Physical facilities/Commodities

Eventhough a good start was made through the FESTP to utilize more efficiently the facilities of senior high schools, physical facilities now available to deliver OST courses are inadequate. Workshops designed especially for skills training courses must be built in ten of the thirteen schools now being used. If the appropriate quality is to be given to OST courses, at least two multiple use workshops should be added to the high schools where courses will be delivered on a rotating basis; one extra workshop should be added to the technical vocational institutes where continuous, permanent courses will be delivered. The equipment acquired through the FESTP is barely adequate to deliver 1977 and 1978 courses; the actual amount of equipment ought to be duplicated, and thereafter more and new equipment should be acquired according to the increases in coverage and outputs of the OST program.

#### Planning/Management Information

The planning/management information system designed consists of three information producing components; a network of local trade advisory councils, tracing of graduates, and occupational surveys. The information gathered through each of these components is necessary and combined, it is sufficient to guide decisions on the types of courses to be developed and the loci of implementation.

All three components of the planning/management information system were put into practice during the life of the FESTP. However, the network of trade advisory councils is not developed enough to ensure that valuable trade information is made available to the schools. More attention must be given to this area, as now trade advisory councils are working for some of the trades in some of the schools. At least ten more councils must be developed.

The tracing of graduates showed that of the courses being offered, those that tend to be more expensive (cosmetology, radio/TV repair) are producing low levels of employment and income; those that

are less expensive (sewing, tailoring) produce higher levels of employment and income; and those that have an intermediate cost (welding, automechanics) produce the highest levels of employment and income. The courses in cooking are the least expensive but produce the lowest levels of employment and income. The setting where courses are offered was found to be important; accordingly, the following course implementation locality criteria should be followed: 1) Courses in sewing, tailoring, and construction, designed to produce entry level skills for work in organized industry should be offered in cities having at least 100,000 people; 2) courses on light, artisan or small shop sewing, tailoring, automechanics, and welding should be offered in cities having at least 25,000 people, on a yearly rotating basis; 3) courses for service occupations, i.e., cosmetology, cooking, radio/TV repair, restaurant help, should be limited and offered only in San Salvador, Santa Ana, and San Miguel; and 4) short-term courses in rural construction (simple electrical wiring, water supplies, sanitation facilities, home improvement), and home based sewing and tailoring should be offered in towns having at least 5,000 people, using mobile units.

## II. EVALUATION METHODOLOGY

The evaluation of the FESTP consisted of three formal evaluations spaced at three 8 month intervals. The first was an income evaluation, intended to show if the FESTP was being implemented as planned; the second was a progress evaluation used to determine if reasonable progress was being made to achieve the objectives of the FESTP; the third evaluation would provide MOE and AID officers with information to plan the expansion of the FESTP.

The evaluation methodology was based on the FESTP logical framework; information was gathered to measure the indicators of achievement for outputs, purpose, and goal set forth in the logical framework. This final evaluation shows the balance between the level of indicators set, and the level of indicators attained, and measures the relevance of the courses offered.

### A. Logical Framework

#### Goal

The goal of the pilot project was to improve the quality of the OST program of the MOE. The indicators of achievement are: 1) increased enrollment and retention rates; 2) reduced time required to achieve course objectives; 3) higher skill level and labor market awareness of course of graduates. Enrollment increased from 666 students in 1978 to 1324 students in 1976, and 1957 students in 1977. Retention increased from 46% in 1975 to 49% in 1976 and 54% in 1977.

As far as the other two indicators are concerned, a comparison between participating FESTP courses and graduates, and non-participating courses and graduates was needed. Ten schools were sampled out of 23 existing OST schools to receive all FESTP inputs. However, a structured comparison was not possible because non-participating schools simply did not keep the records needed, did not generate testing data, did not develop guidance services, and did not trace their graduates. Supervision reports show that unlike FESTP participating schools, the other schools did not finish all course contents in the 360 hour, 9 month period officially assigned to OST courses.

#### Purpose

The purpose of the FESTP was to develop the institutional capability of the MOE to plan, manage, and evaluate innovative, short-term skills training courses for poor, unskilled urban and rural Salvadorans. The indicators of achievement are: 1) trained MOE administrators (3), supervisors (3), teachers (48); 2) 1000 semi-skilled individuals trained and served through an information and guidance system; 3) data examined to evaluate the feasibility of expanding the FESTP; and 4) system components (labor market research, audience follow-up, advisory councils) integrated into a management information system. (See planning/management information, above.)

Indicator one was exceeded in all aspects (see outputs, below); however, the personnel of the Adult and Permanent Education (DAPE) of the MOE is still insufficient in terms of quantity and quality to launch an expansion of their OST program. Of the 10 participants sent to the U.S. for training, only four are working directly with the OST program; the other 6 participants have other responsibilities within the MOE. Moreover, DAPE has lost qualified personnel to other divisions of the MOE who, in many ways, had empathy with the FESTP and helped FESTP personnel in various key activities.

Indicator two was exceeded as 649 semi-skilled individuals were trained in 1976, and 1063 in 1977 (see outputs, below). These figures represent graduates and do not take credit for individuals who enrolled in FESTP courses and did not complete their courses.

Indicator three was attained; data was gathered and examined to evaluate the technical, social, and economic feasibility to expand the OST program.

Indicator four was not fully attained as the trade advisory councils did not reach the level of operations required to function effectively. Eight out of 13 schools have trade advisory councils although not all trades for which training is provided are represented.

The other system components (labor market research, audience follow up) are working efficiently as evidenced by the wealth of information that was generated.

Outputs

Level of output indicators set, and attained, are presented below:

<u>Level Set</u>	<u>Level Attained</u>
10 administrators trained	10 administrators trained
3 supervisors trained	4 supervisors trained
48 instructors trained	58 instructors trained
1000 semi-skilled individuals trained/served through guidance system	1712 semi-skilled individuals trained, of which approximately 1000 were served through guidance system
10 trade advisory councils developed	8 trade advisory councils developed
30 new courses with core content, materials, and equipment, developed	36 new courses with core content developed, of which 21 have materials and equipment
4 labor market and/or audience surveys conducted	3 labor market and one audience surveys conducted

B. Course Relevance

Since the OST courses are intended to provide individuals with entry level skills appropriate to get and hold semi-skilled level jobs; and to upgrade the skills of individuals who are or want to become self-employed, employment as well as level of income were chosen as the quantitative criteria to evaluate course relevance. It must be adverted, however, that there are unaccounted qualitative contributions to the welfare of recipients that courses can make.

To gather employment and income data, FESTP graduates were traced three months after graduation. Letters were sent to all 1060 FESTP graduates asking them to visit their school principal for 15 minutes during a 10 hour a day, 6 days period. Those who did not respond to the request were visited by senior high school students and data were collected on a one page questionnaire. As a final attempt to trace more graduates, an open house meeting for alumni was held at every school. Sixty per cent of the graduates (638 of 1036) were traced. Tracing data obtained were compared with entry data which were collected on a one page questionnaire applied to each entering student. The following tables show the results.

TABLE I - TRACED FESTP GRADUATES EMPLOYMENT STATUS BEFORE AND AFTER TRAINING

Employment Status	1977	1978	Change
Employed	15.33%	19.42%	+ 4.09%
Self-employed	8.56%	28.57%	+19.49%
Seasonally Employed	7.80%	4.45%	- 3.35%
Unemployed	68.29%	47.96%	-20.33%

Note: 69% of graduates (538 of 1036) were traced.

TABLE II - EMPLOYED FESTP GRADUATES MONTHLY INCOME BEFORE AND AFTER TRAINING (In Colones)

Monthly Income Level	1977	1978	Change
1 - 49	3.19%	4.31%	+ 1.12%
50 - 99	3.95%	14.38%	+10.44%
100 - 149	8.59%	10.55%	+ 1.96%
150 - 199	5.83%	10.79%	+ 4.96%
200 - 249	4.13%	5.27%	+ 1.14%
250 - 299	1.03%	1.91%	+ 0.88%
≥ 300	4.79%	4.79%	0

Note: 1 colon = US\$0.40

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FESTP courses helped reduce the level of unemployment of its graduates by about 23%; however, the overall returns in terms of new salaries generated were moderate. Nevertheless, individual returns for participation were good in many cases, as a monthly income increase of 100 or 200 colones represents a duplication of income for most of the participants. The following table shows the income distribution of FESTP graduates in 1977.

TABLE III - INCOME DISTRIBUTION OF FESTP GRADUATES IN 1977 (In Colones)

Monthly Income	1-49	50-99	100-149	150-199	200-249	250-299	300
%	71.67	3.95	8.56	5.83	4.13	1.03	4.70

The following tables show the relative relevance of the courses offered through the FESTP, applying employment and income criteria.

TABLE III - TRACED FESTP GRADUATES EMPLOYMENT STATUS ACCORDING TO COURSE TAKEN

Course Taken	% Employed*	% Unemployed
Automechanics	86.85	13.15
Welding	63.64	36.36
Sewing	58.71	41.29
Tailoring	57.70	42.30
Radio/TV Repair	50.00	50.00
Cooking	37.04	62.96
Cosmetology	32.59	67.41

\*Includes self-employed and individuals who were seasonally employed at the time of the tracing.

TABLE V - AVERAGE INCOME OF EMPLOYED FESTP GRADUATES ACCORDING TO COURSE TAKEN

Course Taken	Average Monthly Income
Welding	₱ 237.25
Automechanics	196.88
Cosmetology	138.50
Radio/TV Repair	128.75
Sewing	127.82
Tailoring	124.50
Cooking	94.60

In terms of employment, automechanics, and welding were the more important courses; sewing and tailoring were slightly above the 50% mark, and radio/TV repair, cooking, and cosmetology ranked low. As far as income is concerned, welding and automechanics were the most important courses, and both show average incomes above the official minimum wage (P154.00/month) for metropolitan areas. The rest of the courses, except for cooking, are below the minimum wage for metropolitan areas, and slightly above the estimated minimum wage for hinterland areas (P110/month).

### III. UNPLANNED EFFECTS

The only unplanned effect of the FESTP was a premature expansion of coverage. The design of the FESTP called for the participation of 10 schools; however, five extra schools were added to the pilot project. Although this premature expansion represented a strain on the resources of the project (the MOE increased its contribution but AID did not), it showed that the FESTP was well received.

### IV. CHANGES IN DESIGN/EXECUTION

There were no significant changes in the design and/or execution of the FESTP.

### V. RECOMMENDATIONS

#### A. Institutional Readiness

The Division of Adult and Permanent Education (DAPE) of the MOE does not have the institutional readiness to continuously improve and expand their OST program. As a result of the FESTP, the administrative and technical functions of DAPE personnel have been separated and specified, needs for additional personnel identified, and hiring time tables prepared. It is strongly recommended that the 22 positions included in the time table be filled in the areas and times indicated to ensure that the technical, administrative, and operational capability exists within DAPE to plan, monitor, and evaluate on a sustained basis their OST program. (See the Appendix for the list of proposed new positions and an organization chart for the OST program.)

DAPE should take advantage of the expertise of other offices of the MOE. The materials production center (CENPROME) has qualified personnel, equipment, and materials to produce basic instructional materials that OST courses need badly. The Division of Intermediate Education (high school level) has under its jurisdiction 5 regional technical vocational institutes, and the human and physical resources that go along with such infrastructure. A closer coordination with this division can benefit both, the OST program, and the services of the regional technical vocational institution. Wherever, and whenever

possible, OST mobile courses should complement basic education programs in home improvement, nutrition, handicrafts, and rural life skills, aimed at improving small towns in accessible rural areas.

The whole area of personnel administration and development is markedly deficient. Function/task descriptions should be written for all DAPE staff; minimum entry level qualifications ought to be established, and a standard meritocratic hiring practice set. This will not happen overnight, but strong efforts are needed to correct personnel deficiencies at all levels of DAPE operations. In-service and self renewal training for its personnel should be continuous concerns of DAPE. There are some individuals within DAPE who work hard and efficiently; these people should be compensated and used to motivate and upgrade others. Also, manuals of procedures for supervisors, principals, and instructors should be prepared.

#### B. Systems Development

The basic systems needed to plan, monitor, and evaluate entry level, skills training courses and services have been designed, and some have been used successfully. However, adjustments and further actions are in order. The guidance system needs more support as it has not reached the level of effectiveness required. More monitor time, and in-service training of school principals are needed. The network of trade advisory councils needs further development to ensure that all trades for which training is given are represented in the major city councils.

The course development system/process has had a good start, nevertheless, the stock of courses available is underutilized. The fifteen analytical charts, and job profiles now available should be developed into specific courses. Moreover, instructional materials production is very weak; this is a key part in course/instructional development. Good analytical charts, job profiles, and course guides are practically useless if good instructional materials are lacking.

It is strongly recommended that instructional materials be considered an integral part of the course/instructional development process and that more resources be given to this high priority activity. Enough basic course materials are available; before more basic course material development is attempted, complete courses including instructional materials should be developed.

#### C. Course Offerings

Unlike compulsory education, adult education/skills training courses do not have "captive" audiences; adults and young adults attend education and/or skills training courses because they want to, and because they need to acquire knowledge and/or skills. Accord-

ingly, OST courses should respond to real needs for skills training; skills developed through OST courses must be needed, applicable, and timely. DAPE has allowed irrelevant courses to be delivered year after year in the same communities. A partial correction of this situation has been made through the FESTP. Now that course outcomes have been accounted, guidelines for planning further course offerings can be formulated. The following recommended guidelines should be used to deliver courses in 1979 and 1980; as new evidence is produced, these guidelines can be sustained or modified.

1. Course offerings in sewing and tailoring should be expanded. The expansion should consist of offering more 360 hour courses in general, artisan level sewing and tailoring, and offering new, shorter, more specific courses to develop entry level skills for access into organized industry. Occupational analyses for entry level jobs in organized tailoring and sewing industry, including analytical charts, specifications of equipment and supplies needed, are already available.
2. Course offerings in cosmetology, radio/TV repair, and cooking should be limited to one general 360 hour course per year for each area, and delivered only in Santa Ana, San Miguel, and San Salvador. 120 hour courses in each of these areas should also be developed and delivered in the same cities, to students who already possess limited general skills in these areas.
3. 120 hour, and 360 hour courses for the construction trades should be developed. Promising areas of self-employment or employment are: a) carpentry (doors, closets, roof frames); b) welding and framing (small metal trusses, grill work, iron ornaments); c) electricity (wiring installation); d) plumbing (pipe laying, drainage); e) sheet metal (forming by hand tool, forming by light equipment, and welding); f) masonry (concrete preparation, brick laying, finishing, painting). Again, some of these areas already have occupational analyses data, analytical charts, and lists of equipment and supplies needed.
4. Automechanics courses should be made more specific; a general 360 hour course in automechanics should not attempt to cover more than brakes, suspension, tune-ups, and preventive maintenance. 120 hour courses in electric system service, cooling system service, and exhaust system service should be developed. Engine and power train work should be left for skilled level course programs.

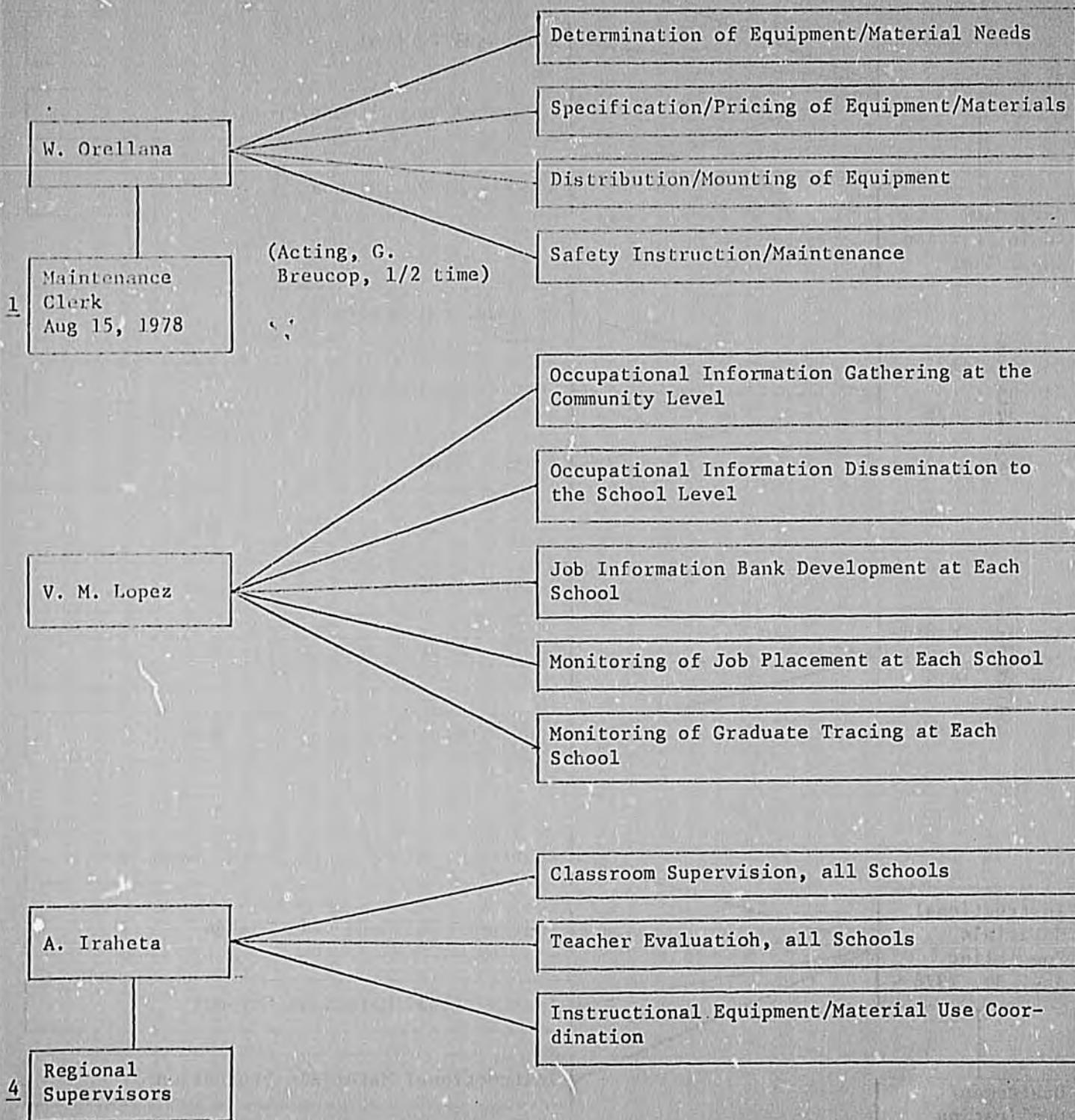
5. Courses should be organized into permanent, rotating, and mobile, according to the setting where delivered; the following delivery scheme is recommended:
  - a) General, semiskilled 360 hour courses in auto-mechanics, sewing, tailoring, radio/TV repair, welding, cosmetology, cooking, and construction trades, and specific entry level 120 hour courses in these areas should be delivered on a continuous basis in designated main cities with populations over 50,000.
  - b) General 360 hour and specific artisan level 120 hour courses in automechanics, sewing, tailoring, welding, and construction trades should be offered in designated places, in secondary cities with population from 10,000 to 50,000, and rotated yearly from one city to the other.
  - c) Mobile, short courses, up to 100 hours, in sewing, tailoring, construction, pump engine, boat engine, motorcycle engine, food hygiene, nutrition, and handicrafts, etc. should be delivered in locations with at least 5000 people, only after a specific needs assessment has been conducted in the locus of implementation, and in coordination with the rural skills training unit of DAPE.

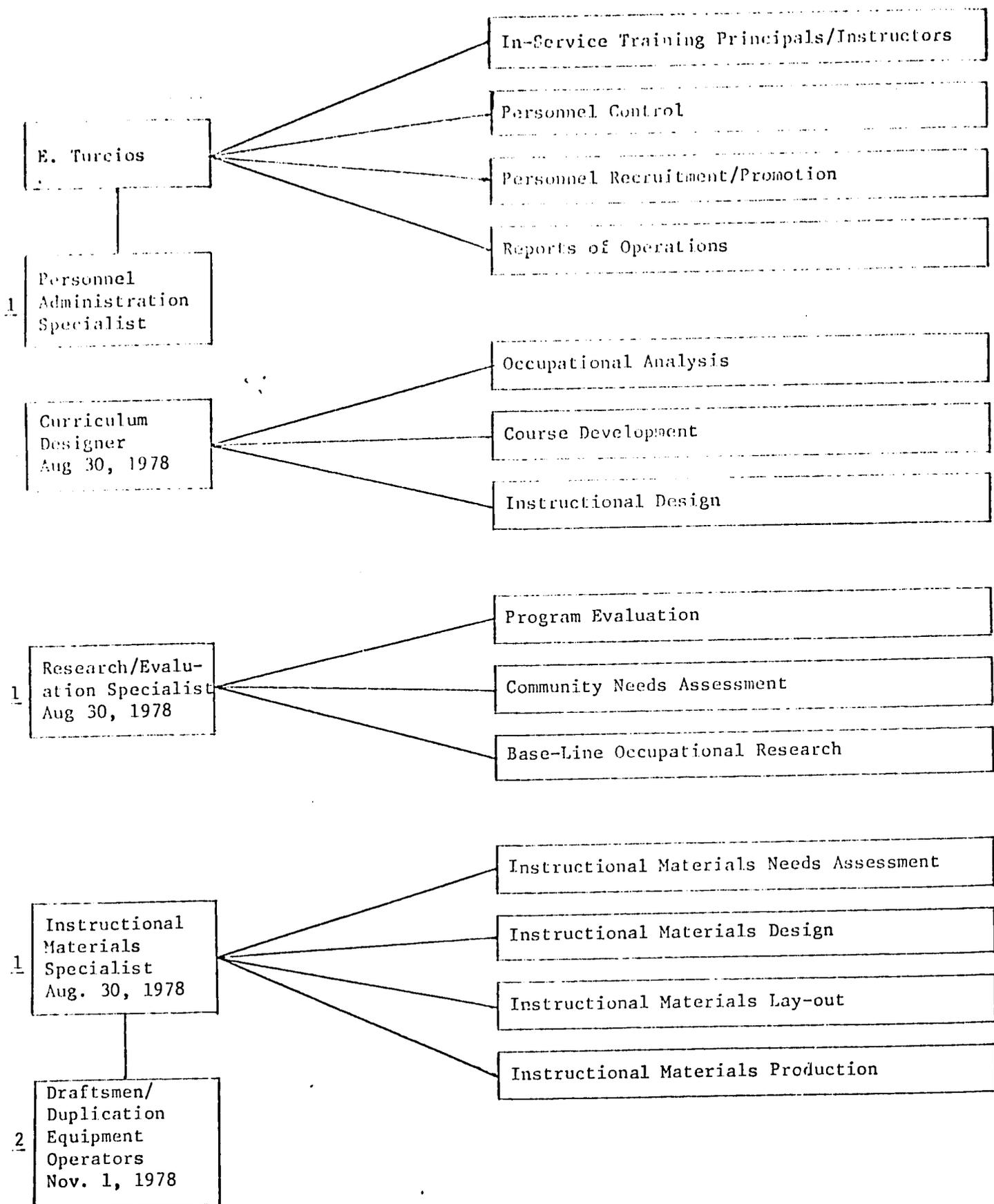
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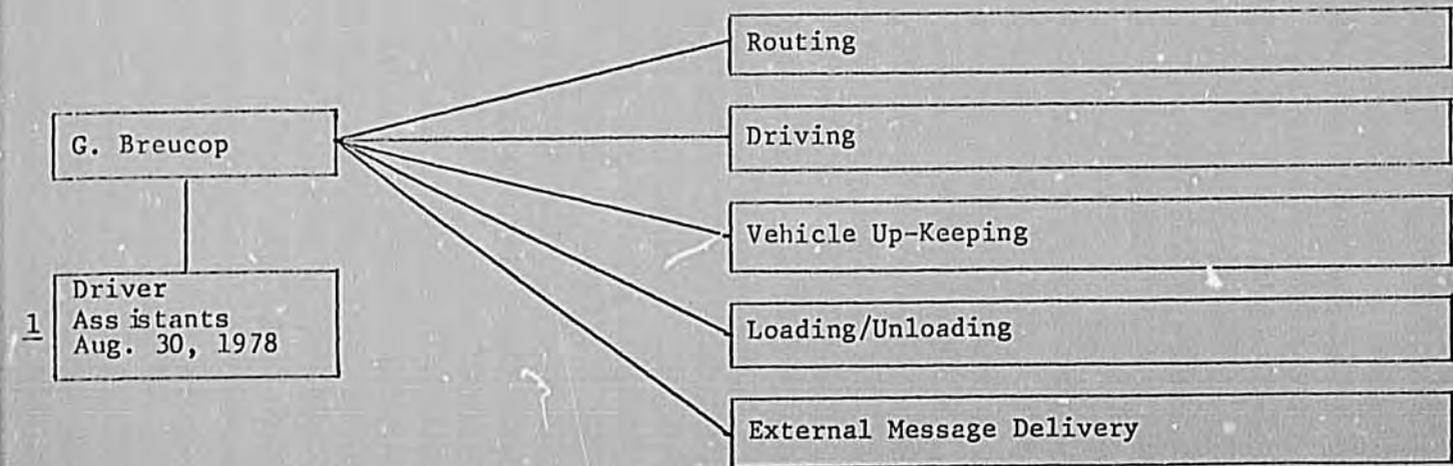
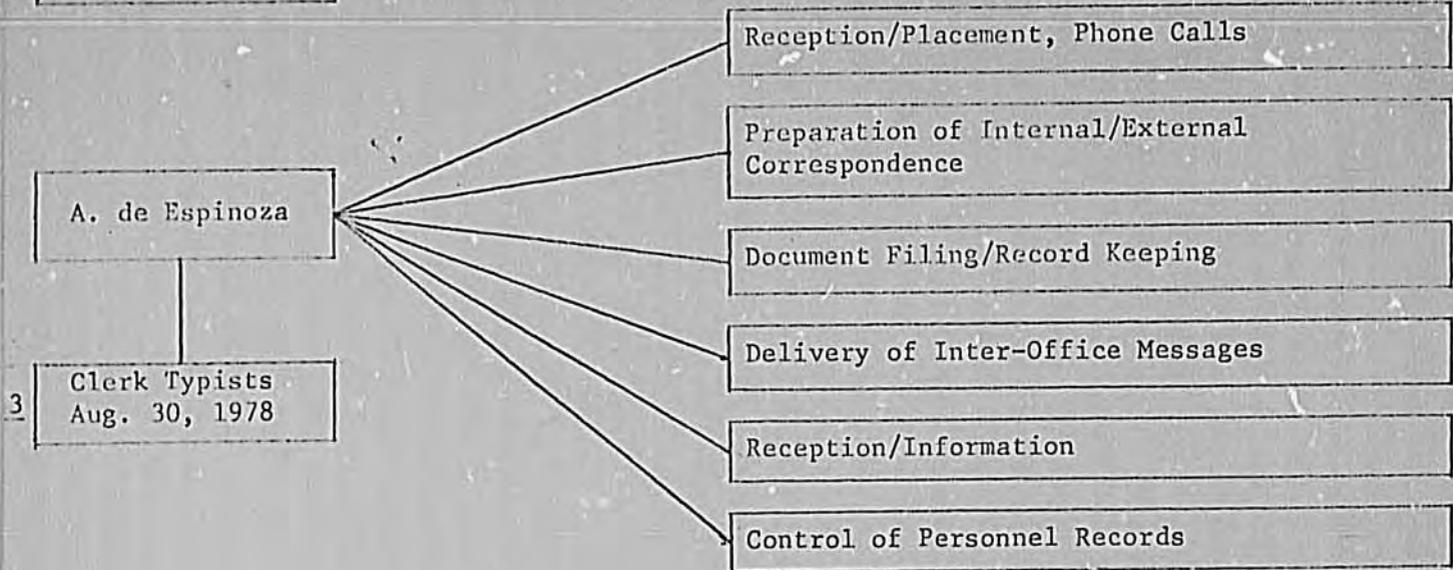
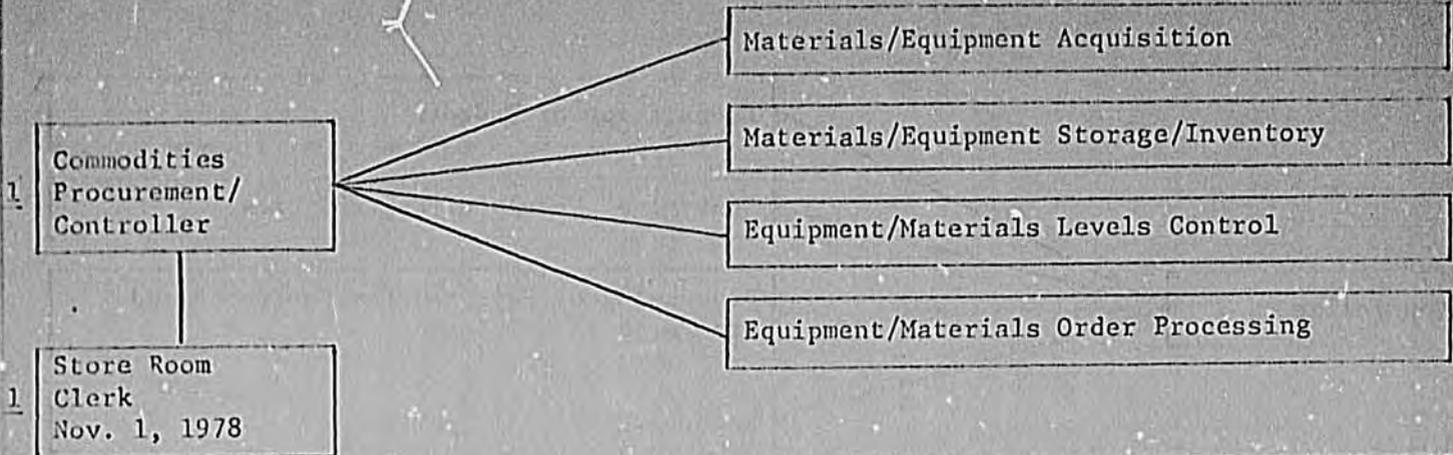


It is suggested that each of these units be supported by trained personnel with adequate material resources and secretarial assistance. Inherent here is the need for a long term professional development training program designed to reinforce and improve the organizational capacity at each level. The MOE organizational unit would be reinforced by a technical assistance advisory team consisting of expertise in project administration, non-formal adult education, evaluation and community education. It is suggested further that the technical assistance team be supplemented with substantial short-term consultant assistance in key areas such as materials production, administration, evaluation, community development (orientation's toward sociological, anthropological, political and cultural analysis) and building and equipment repair and maintenance.

TIME TABLE I DEAP PERSONNEL DEVELOPMENT







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Controller

Preparation of Budgets

Control of Levels of Expenditures

Processing of Payments for Contracts and  
Non-Personal Services

Reports of Fiscal Operations

