

AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D. C. 20523
BIBLIOGRAPHIC INPUT SHEET

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BATCH 61

TEMPORARY

1. SUBJECT CLASSIFICATION
A. PRIMARY
B. SECONDARY

2. TITLE AND SUBTITLE

A follow-up evaluation and a model for utilization of the ELS(English Language Services) teacher education program

3. AUTHOR(S)

Kaplan, R.B.

4. DOCUMENT DATE

1971

5. NUMBER OF PAGES

94p.

6. ARC NUMBER

370.71.K17

ARC

7. REFERENCE ORGANIZATION NAME AND ADDRESS

Southern Calif.

8. SUPPLEMENTARY NOTES (Sponsoring Organization, Publishers, Availability)

9. ABSTRACT

(EDUCATION R&D)

10. CONTROL NUMBER

PN-AAD-836

11. PRICE OF DOCUMENT

12. DESCRIPTORS

13. PROJECT NUMBER

14. CONTRACT NUMBER
CSD-3157 Res.

15. TYPE OF DOCUMENT

370.71
K17

**A FOLLOW-UP EVALUATION
and
A MODEL FOR UTILIZATION
of the
ELS TEACHER EDUCATION PROGRAM**

(AID/csd - 3157)

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December 1971

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ABSTRACT
Report: A Model for Utilization
of the
Teacher Education Program (ELS/TEP)

1.0 The History of TEP

The Teacher Education Program (TEP) was originally designed under a contract between the United States Agency for International Development (USAID) and English Language Services, Inc. (ELS), later known as English Language Services/Washington Educational Research Associates, Inc. (ELS/WERA), during the three-year period between 1962 and 1965. The self-instructional, automated program thus developed was intended to serve teachers of English as a second or foreign language in less developed countries (LDCs) where either native speakers of English were not available as teacher trainers or demand for teachers of English far outstripped supply. Upon completion of the two-phase development, the Program was tested in Washington by ELS; later, it was field tested in Nigeria (under the auspices of the Ford Foundation through a contract with Southern Illinois University), and in Caracas, Beirut, Hyderabad, and Singapore. In addition, it was also tested in Austin, Texas, at Northern Arizona University, and at the University of Southern California. The various field tests were intended to demonstrate the durability of the TEP hardware, the feasibility of such automated instruction, and the viability of TEP software.

2.0 The Present Situation

Upon conclusion of the field tests and tryouts, the existing equipment was turned over to the participating institutions overseas in the hope that they would continue to use it. In the summer of 1971, during the course of a follow-up study which forms part of this report, it was

noted that the equipment left at the various participating institutions was in general not in use, largely as the result of equipment failure since the close of the tryout phase. In some cases, however, the TEP was either being modified or being used in somewhat modified form by the participating institutions.

3.0 The Tryout Design

The present review of the tryout phase suggests that there may have been a number of problems unintentionally built in to the tryout design; namely, 1) the failure to take full cognizance of the fact that TEP was an additive and not a replacive program; 2) the resulting problem that TEP may have therefore been tested over the wrong population; 3) the inadequate follow-up of participants after completion of the Program; 4) the "global" nature of the TEP materials; 5) the unsatisfactory performance of the TEP hardware; 6) the accompanying loss of flexibility and of multiplier effect; 7) the exaggerated estimates of the life-expectancy of the hardware, and 8) the failure to relate TEP tryouts to language policy in the countries selected.

4.0 Current Interest in TEP

In spite of all difficulties encountered in the TEP tryouts, there is clear evidence both that TEP is a viable program and that there is a high level of interest in its continuing development. That interest exists in the academic community, in the agencies of government both in the countries in which TEP was tried out and in other countries, and in the private sector.

5.0 Recommendations and Alternatives

On the basis of these facts, it is recommended that TEP be utilized. Such utilization, however, will require one of several

possible modifications of the TEP:

A. Stop-Gap Modifications:

1. Elimination of the present hardware and more flexible packaging.
2. The addition of new audio-tape materials.
3. The rewriting of text materials only.
4. The reshooting of all visual materials either on 16 mm film or on video-tape.
5. The shortening and basic correction of the existing program along with the marking of possible points or insert for branching programs designed in participating countries to meet the specific linguistic and pedagogical needs of those individual countries.

B. Total Modification of the TEP on the basis of all input from field tests and from independent scholarly advancement.

The cost of such modifications extends across a considerable range. In considering viable alternatives, it is necessary to be concerned with the ultimate means of distribution of the revised package, with the format of the new package, and with the means of coordinating the acceptance of the new package with the language policies of potential users. The interest of the private sector is of importance in these considerations, since the private sector could support some phases of development; but a concern with profit could preclude wide use of the package by raising its initial cost beyond the reach of developing countries. The interest of administrative and educational agencies in other countries is also of importance since that interest could provide for the support of duplication of the TEP, of adaptation of the TEP materials to a locally viable hardware, and of development of local adaptations of the linguistic and pedagogical portions of the program. If these activities were to be undertaken by administrative and educational agencies in other countries, it would probably be necessary for USAID to consider the support of specialists who could assist those agencies in both the development of TEP

and in the maintenance of independent relevant capabilities quite beyond the needs of TEP. The possibility of diversifying the TEP model to serve other pedagogical needs also should be considered.

The full report considers each of these matters in some depth. Where relevant, supporting information is cited. (Numbers in parentheses in the text refer to items in the appended bibliography which include supporting information.) Some attempt is made at presenting cost estimates for the various available alternatives in the recommended development of TEP; however, obviously the cost estimates cannot represent more than informed guesses at relative cost. There are too many variables involved to project precise figures. Factual information contained in the report is derived either from the sources cited in the bibliography or from the individuals whose names are listed in Appendix I.

6.0 Conclusion

In short, TEP is a viable program for the training of teachers of English as a second or foreign language and the model presented by TEP may also be viable for the training of teachers of other academic disciplines. There is no question that TEP ought to be developed further. However, if it is to be developed further, a number of alternatives present themselves. The purpose of this report is to present those alternatives and to suggest the important role that TEP may play in the development not only of teacher training aid to the developing countries but also of coherent language development policy.

REPORT

A FOLLOW-UP EVALUATION
and
A MODEL FOR UTILIZATION
of the
TEACHER EDUCATION PROGRAM
AID/csd-3157

(ELS/TEP AID/Repas-1)
July, 1962-November, 1971

by

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TABLE OF CONTENTS

SECTION		PAGE
1.0	History of TEF	1
1.1	Development of TEF	1
1.2	Review of Tryouts	4
2.0	The Present Situation	6
2.1	Caracas	6
2.2	Beirut	8
2.3	Hyderabad	9
2.4	Singapore	12
3.0	The Tryout Design	15
3.0.1	TEF as an Additive Program	15
3.0.2	Follow-up Phase	17
3.0.3	AIR Representatives	19
3.1	Other Inherent Problems	20
3.1.1	Global Nature of TEF	20
3.1.2	TEF Hardware	21
3.1.3	Loss of Flexibility and Multiplier Effect	23
3.1.4	Life Expectancy of TEF	23
4.0	Current Interest in TEF	24
4.1	A Country-by-Country Review	26
4.1.1	Brazil	26
4.1.2	England	26
4.1.3	Lebanon	29
4.1.4	India	30
4.1.5	Singapore	32
4.1.6	Taiwan	33
4.1.7	Japan	35
4.1.8	American Samoa	38
4.1.9	Puerto Rico	40
4.2	Other Areas (not visited)	41
4.3	Commercial Interests	41
4.4	Summary	42
5.0	Recommendations	43
5.0.1	Introduction	43
5.1	Hardware	44
5.2	Stop-Gap Options	45
5.2.1	More Flexible Packaging	45
5.2.2	Add New Tapes	45
5.2.3	Rewrite Textbooks Only	45
5.2.4	Remake Films Only	45
5.2.5	Shorten Program and Mark for Branching	46
5.2.6	Modify Total Existing Program	46

5.2.7	Distribution of Modified Program	46
5.2.8	Format for Development	49
5.3	Total Revision of TEP	50
5.3.1	Estimated Costs	52
5.3.2	Distribution of New TEP	52
5.3.3	Format of New TEP	55
5.3.4.1	Other Recommendations (Negotiations)	56
5.3.4.2	Lending of Specialist Personnel	56
5.3.4.3	Diversification of TEP Model	56
6.0	Conclusion	57
6.1	Distribution of Report	57
6.2	TEP Library	57
7.0	Appendix I: List of Persons Interviewed	58
8.0	Appendix II: List of Persons Who Have Reviewed This Report	69
9.0	Appendix III: Bibliography	71
10.0	Appendix IV: List of Abbreviations Used	79

1.0 History of TEP

The original project which ultimately resulted in the TEP was funded in July, 1962 (54), and was conducted in three phases between 1962 and 1965 by English Language Services, Inc., in Washington, D.C. The initial three phases of the project included the design and development of a pilot version of a self-instructional programmed course for the training of teachers of English as a second language. The project was the outgrowth of an awareness, both on the part of USAID and on the part of the proposer, that there was a growing need for English language instruction globally; that it was unlikely that the available supply of live teachers could ever meet the demand; that many LDCs lacked sufficient numbers of trained teachers and--insofar as native speakers are requisite to the adequate development of language programs and teacher training programs for language teachers--also lacked the capabilities to improve the supply of such teachers, and that the most economical solution to the problem probably lay in the development of some sort of automated program which employed at least some elements of instructional technology and of machine instruction.

1.1 DEVELOPMENT OF TEP: Phase I of the original project developed the content and structure for such a model; Phase II developed the model itself, and Phase III developed a package for the distribution and use of the model. At the inception of the project, it was assumed by both parties that the project would eventually move

into an overseas testing phase. Regrettably, Phase IV of the originally conceived package was not funded. Since the Phase III final report had been submitted on November 8, 1965 (54) and no further funding was available, in 1966 ELS undertook to validate the model in Washington at its own initiative.

A number of coincidental activities occurred in 1966. Phase IV was not funded because it failed to go forward to the appropriate AID committee at the appropriate time. By the time the technical oversight had been corrected, ELS had encountered some other problems which made it virtually impossible for ELS to undertake additional contract activity. In the fall of 1966, the Ford Foundation, under a grant to Southern Illinois University, and with the permission of USAID, undertook an initial overseas field test of the model at Enegu, Nigeria (61).

The tryout was planned to occur in three phases, and the initial phase was to begin in the summer of 1966. In the interim, ELS was reconstituted as English Language Services/Washington Educational Research Associates, Inc. Between the time of its reorganization and the beginning of the first phase of the Nigeria tryout, ELS/WERA put together a revised pilot model, based upon the ELS experience in the initial test of the program conducted in Washington between the submission of the Phase III final report in November 1965 and the reorganization of ELS.

The period during which the revision was carried out was extremely brief, considering the complexity of the program and the

amount of material involved. Nevertheless, a revised pilot model was delivered in Nigeria for the first overseas tryout. Regrettably, the tryout was somewhat hampered by the outbreak of the Nigerian Civil War. Ultimately, the test program was moved to the University of Ibadan, and for a variety of reasons ultimately culminated in a two-phase rather than the initially posited three-phase test. The Report of Tryout I was submitted in March, 1967 (59), and the Report of Tryout II in August, 1968 (60).

In the interim, USAID funded four additional overseas tryouts. The American Institutes for Research submitted a proposal for the evaluation of the ELS/TEP (16) in January, 1967, and ultimately received the award. The overseas sites were selected-- the Latin American site was the last to be chosen (36)--and the evaluation was conducted over a period of several years (17-25).

In the latter part of the experimental evaluation, a Skills Inventory was developed by AIR for purposes of pre-and post-test evaluation of the participants (27, 53). The Skills Inventory was employed in the final phases of some of the tryouts, but was not available for all tryouts. The final report of all tryout activities was submitted in February, 1970 (14), and at that time all funded activity came to a close.

In the interim, the TEP was also tried out within the continental United States. Initial tryouts were conducted under the auspices of the USOE under the terms of the NDEA in the summer of 1968 at the University of Southern California (35) and again in the summer of

1969 under the terms of the EPDA, also at the University of Southern California (13). A tryout was also conducted in 1967 under the auspices of the Texas Education Agency under the provisions of its Migrant Teacher Program (51). Additional experience with TEP was acquired at Northern Arizona University.*

The present activity is an outgrowth of the two summer institute experiences at the University of Southern California and out of other nonfunded activity at the University of Southern California which has occurred since 1969 and which has involved training of teachers from Japan, Brazil, and other countries. In March, 1971, a proposal to develop a model for utilization of TEP was submitted (34).

The present report constitutes an attempt to present such a model.

1.2 REVIEW OF THE TRYOUTS: The tryouts were conducted in two basic series: the first series under the auspices of the Ford Foundation in Nigeria, and the second under the auspices of USAID in Caracas, Beirut, Hyderabad, and Singapore. As noted above, the Nigerian tryouts were somewhat modified as a result of events stemming from the Nigerian Civil War. In all other instances, the tryouts were conducted at institutions which normally engage in teacher training, with the authority of those institutions and the permission of the respective governments. The tryouts were intended to demonstrate the viability of

*At this date, no formal reports of the Northern Arizona University use are available to this project. TEP has also been used in the US Trust Territories in the South Pacific. Research data is not presently available. TEP has also been used by the Adult Education Division of the New York State Department of Education, by the Hartford, Connecticut, Board of Education, and by the Tuba City Public Schools.

the equipment under tropical conditions, to demonstrate the general viability of the educational program, and to demonstrate that learning does occur.

According to reports from the individual sites, each of the three phases demonstrated appropriate viability (5, 6, 7, 10, 15, 26, 30, 31, 44, 45, 46, 49, 52, 56, 59, 60, 61). The evidence demonstrates rather conclusively that the hardware portion of the package was feasible, that the software portion of the package was viable, and that learning did occur at statistically significant levels. As a result of the basic design of the tryouts, no follow-up was conducted on participants except in a random way, and cost evaluations of the TEP in comparison with regular programs at the various test sites were not conducted in all instances and, where conducted, proved to be extremely difficult to conduct. In the final analysis, as indicated in the Final Report (14), cost analyses were inconclusive.

On termination of the experimental phase, existing programs were turned over to the participating institutions for continued activity. (In fact, the turnover did not occur in India as a result of certain special problems to be discussed later.)

The formal experimental use of the TEP in NDEA and EPDA institutes in the United States also basically substantiated the findings of the overseas tryouts (13, 35, 51). In the tryouts conducted within the United States, no attempt was made to perform relative cost accounting; the structure of those tryouts, funded as they were by USOE, in fact precluded such attempts at cost accounting.

The critical point to which attention must be called is that the TEP proved to be basically successful in all field tests performed; in short, it does constitute a significant and viable means of teacher training.

2.0 The Present Situation

Under the provisions of the original agreements between USAID and the overseas institutions permitting TEP tryouts, the equipment and software were turned over to the participating institutions at the conclusion of the tryouts under the conditions that the participating institutions would continue to use the TEP. The following is a survey of the present condition and use of TEP as observed in four of the five centers during the summer of 1971. (Since the installation in Nigeria was originally funded by the Ford Foundation rather than by USAID, that site was not visited during the follow-up evaluation.)

2.1 CARACAS: The TEP is housed at the Instituto Pedagógico in Caracas. It still occupies the special room on the third floor of the Institute which was specifically designated and renovated for that purpose prior to the initial tryouts. The results of the tryouts have been reported previously (5, 6, 7, 10, 14, 15, 26, 31, 36). At the present time, TEP is not being utilized. Some fifty per cent of the films are not in usable condition as a result of film jamming and breakage; in addition, some thirty per cent of the tapes have had the master tracks accidentally erased. Some cartridges are cracked or broken. At the time of the on-site visit, only one console was

fully operative; one had a badly damaged tape deck, and the third had an inoperative Fairchild projector and electronic hum in the audio system. Although a local technician has been employed to maintain the equipment, the difficulty of obtaining parts has been an impediment to full operational efficiency. There is some evidence that clutch slippage and the design of the reel-to-reel cartridge have been major problems.

Since the end of the tryouts in 1969, approximately ten students have been processed through TEP. At present, the program has been broken up into its components, and regular degree candidates passing through the Institute receive Phonology and Grammar as components of first-term seminars and Classroom Techniques/Methodology as components of last-term seminars some two years later. Obviously, the last two components cannot be fully administered because of the amount of damage and loss in the films. In addition, the Phonology and Grammar sections are being used to teach English as a foreign language.

Interviews with three available participants from the original tryouts indicated that participants had enjoyed the program, that they would willingly repeat it now, that they encountered the greatest difficulty with the Trager-Smith transcription system, the sections on suprasegmental phonology and transformational grammar, and the "unreality" of the situation depicted in the methodology films. The participants believed that TEP, in large enough quantity to assure a multiplier effect, should be employed in Venezuela, but

the faculty of the Institute regarded the TEP as an interesting experimental program which clearly constituted a luxury far beyond either the needs or the capabilities of the country.

2.2 BEIRUT: The TEP is housed at the American University, Center for English Language and Teaching, in a special room designated for that purpose prior to the tryouts. The results of the tryouts have been previously reported (14, 15, 26, 49). At the present time, TEP is not being utilized; indeed, it has not been systematically used since the close of the tryouts. A group of Nepalese participants were put through the Phonology and Grammar parts of the program in 1970. Approximately 60% of the films are not in usable condition as a result of burning, jamming, and breakage. The tapes seem in relatively good condition, although occasional tapes have had the master tracks accidentally erased. Two of the Fairchild projectors were inoperative at the time of the on-site visit, but the tape decks are basically in good condition. Characteristic problems with the Fairchild projectors (jamming) and with the clutch mechanisms of the tape decks were reported.

Interviews with the last two remaining members of the Nepalese group indicated that the participants were highly motivated, that they experienced difficulties with the Trager-Smith transcription system and with the sections on suprasegmental phonology and transformational grammar, but that they enjoyed the experience and would repeat it if the opportunity presented itself. These participants did not go through the methodology sections, although they did sample those sections randomly. These participants called attention to the fact that no specific phonological or syntactic contrasts with their language were

presented and that, as far as their sampling of the methodology section indicated, the teaching situation presented in the methodology films was highly unrealistic.

The Nepalese participants indicated their belief that TEP in slightly modified form would be most helpful in Nepal, but that so far as they could tell the cost would presently be prohibitive. Faculty training teachers of English at the Lebanese University indicated that the TEP could be used with greater profit at the Lebanese University than it could at AUB, and an attempt was made during the on-site visit to arrange for the Lebanese University to have access to the equipment. The USIS office indicated its willingness, under those circumstances, to undertake corrective and preventive maintenance. No apparent plans to continue use of TEP at AUB came to light during the on-site visit, although AUB faculty indicated belief that TEP had considerable potential for use if certain modifications were undertaken.

2.3 HYDERABAD: The TEP is presently housed at the Central Institute of English in the special room designated for its use prior to the tryouts. The results of the tryouts have been previously reported (14, 15, 26, 39, 44, 45, 46). At the present time, TEP is not being utilized. The situation in India is the most complex of any at the various tryout sites; indeed, the equipment has not been formally turned over in India. In order to avoid the necessity of paying full import duties on the equipment, USAID has held the equipment in its technical possession for a period of three years from date of entry, in accord with the regulations of the Government of India. The holding period expired in January of 1971. Since that time, efforts have been made to effect the

turn-over, but there seem to have been some bureaucratic obstacles; indeed, during the on-site visit, a representative of USAID (Delhi) came to Hyderabad to facilitate the turn-over. The circumstances seem to be that the Director of the Central Institute of English is expected to request the TEP as if it were not already located at the Central Institute. His request must be processed through the Ministry of Education of the Government of India and through a number of other national agencies. When approval has been acquired from the appropriate agencies, the Government of India will instruct the USAID to proceed with the turn-over. The Director of the Central Institute of English is understandably reluctant to enter into the proposed negotiations because: 1) he feels that such a request as he is expected to initiate is redundant and may be misinterpreted; 2) he feels the process may be extremely prolonged; 3) he believes that the initiative to effect the turn-over should be assumed by USAID.

At the time of the on-site visit, none of the TEP consoles was operative. All consoles are operated by a series of rubber drive belts. Available spare drive belts were exhausted by the end of the tryout period. Permission of the Reserve Bank of India is required to purchase additional belts, since Fairchild distributors are not available within India. Such permission has been requested but has not yet been received. Without the belts, it is not even possible to check the equipment for other operational difficulties. Repeated efforts have been made to acquire new belts and even to modify the existing ones, but without success. As a result, no participants

have been exposed to TEP since the close of the tryout period.

(Belts were dispatched to the Central Institute on September 7, 1971, as gifts from this researcher to the Central Institute.) Regrettably, no prior participants were available for interviews during the on-site visit; however, the faculty of the Central Institute indicated belief that the TEP would be useful in India not only in its present form for the training of teachers of English as a second/foreign language, but in modified form for the training of teachers of Indian languages. However, the insurmountable problems in relation to the maintenance of the hardware have precluded use of the Program and have impeded long range planning for continued or modified implementation of the Program.

A secondary problem revolves around the use of a portable 25 KW generator. The generator was acquired and utilized on the supposition that line current was unreliable; on the contrary, the generator has proved to be much more unreliable than the line current. Indeed, at best, the generator has never operated effectively, since the equipment requires 60 cycle current, while under ideal circumstances the generator does not supply more than 55 cycles and does not maintain that production constantly since its operating motor tends to produce considerable fluctuation in rpm. At present, the generator operates only the air-conditioning system, and the TEP hardware is operated from line current through a transformer. Nevertheless, the presence of the generator has created additional problems and has increased maintenance costs considerably.

The films and tapes appear to be in excellent condition. At the time of the on-site visit, only approximately half-a-dozen films were not usable as a result of jamming, burning, and breakage. All tapes were usable, but a number of the tapes had had their master tracks accidentally erased. These tapes had been re-recorded employing original scripts but speakers of Indian-English. All tape decks were operational, and every effort had been expended to keep the equipment operative. There were indications, however, that the same problems with the tape deck clutch systems as noted elsewhere had also been experienced in Hyderabad, and some tapes had suffered damage from jamming.

2.4 SINGAPORE: The TEP is housed in the language laboratory at the Regional English Language Centre (SEAMEO), as it was during the try-out phase. The results of the tryouts have been reported previously (12, 14, 15, 26, 30, 33, 52, 56). At the present time, TEP is both being utilized in modified form and being modified. All TEP consoles are in operational condition, and the films and tapes have been maintained. A number of the tapes have been re-recorded employing original scripts and local voices. The Program is under the charge of a full-time laboratory technician whose task it is to maintain the equipment and to keep films and tapes operational. The Program is sporadically employed to train participants from the SEAMEO countries. (A regional seminar was held in 1968 under REIC auspices to determine the possibility of TEP use in member nations, and the report of that seminar (52) contains papers on TEP use in particular nations.)

In addition to continued use, RELC has undertaken, at its own expense, some modification of the TEP. On the basis of the Regional Seminar held in 1968 (52), it was determined that additional tapes were needed specific to the particular phonological problems of the member nations. A survey was conducted among language teachers in the member nations to determine the nature of phonological contrasts necessary, and on the basis of that survey, forty additional tapes are presently in preparation. The first additional printed scripts specific for Singapore (9 lessons) are now available (62, 63, 64). In addition, seven lessons for Malaysia, four for Indonesia, twelve for Thailand, fourteen for the Philippines, eight for Vietnam, and nine general lessons have been prepared. Each of the new lessons is accompanied by appropriate exercises. The following cost analysis was provided for the production of these additional materials:

Production of Scripts--

Staff Assistant (writing time)	3 man months
Professional Staff Time (production and analysis of questionnaire)	½ man month
Total Cost	\$ \$5,000.00

Production of Tapes--

RELC studio facilities	
Professional Staff-time 1 week	
Technician 1 week	
Materials (raw tape stock)	
Total Cost	\$ \$1,500.00
<u>TOTAL</u>	<u>\$ \$6,500.00</u>
(That is, a total cost of \$2,166 in U.S.)	

REIC further plans to revise all of Workbook I of TEP, with the new materials taking the place of Book 5 of Workbook I (all new script sections will be labeled Book 5A to designate the appropriate point of insertion, leaving to the individual country the option of including or excluding existing Book 5). It is presently estimated that all necessary work and materials (including the purchase of ELS master tapes) can be accomplished for approximately S \$8,000 (\$2,700 US); in short, total revision of Workbook I, including the addition of approximately 40 new tapes with scripts and exercises, is being accomplished for the cost of approximately \$5,000 US. In large part, these funds have been derived from surpluses remaining from the initial tryouts. The expenditure will produce ten new sets of WBI.

Revision of the Skills Inventory Test (27, 53) has also been undertaken, largely to reduce redundancy and to decrease test time. An eight hour experimental version is presently being tested in Singapore, and plans are complete for field tests in Bangkok and Djakarta. It is estimated that to date S \$7,900 has been expended and that an additional S \$6,100 will be required to complete the revision; thus, a total estimated cost of S \$14,000 (\$4,700 US) will be required. These figures represent a cost somewhat higher than what will actually be spent because professional staff salaries are underwritten by agencies other than REIC and therefore in a sense remain hidden. These figures are interesting as an indication of what can be accomplished in terms of TEP revision for under \$10,000 US in some areas interested in TEP utilization.

In addition to these text revisions, REIC has prepared two shorter versions of the total TEP. These, respectively twenty hours and four hours in duration, are intended to demonstrate TEF capabilities both to REIC Seminar participants and to educators in the participating countries. Discussion with four prior participants again indicated high motivation, but it also indicated the same kinds of difficulties previously mentioned by other participants: namely, difficulty with the Trager-Smith transcription, with the sections on suprasegmental phonology and transformational grammar, and with the methodology section in terms of the size of the demonstration class. In addition, for the first time some dissatisfaction with the audio-lingual approach was noted. Participants commented on the lack of multiplier effect in the present configuration of the Program and on the seemingly high cost per participant in the tryouts.

3.0 The Tryout Design

It may be that some of the difficulties reported in the final report of the TEP tryouts were built into the system by the design of the tryouts. In the first place, the tryouts were all conducted at teacher training institutions. Obviously, the location of the tryouts at such institutions was necessary in order to maintain adequate control over the participants, participant time, and--at least to a certain extent--over costs. On the other hand, such location of the tryouts immediately introduced a number of technical variables.

3.0.1 The TEP was designed initially and basically intended to be a supplementary additive program; it was never intended to become

a substitute for a regular degree-oriented curriculum in a teacher training institution. Yet by placing it in teacher training institutions, it was immediately placed in juxtaposition with regular degree-granting curricula. Indeed, what attempts were made at cost analysis are all couched in terms of comparison with degree-granting curricula. Not only was the TEP, then, evaluated against degree-oriented curricula, but it was obviously tested--at least to some extent--on the wrong population.

This is easiest to describe in terms of the situation of a particular country. Venezuela is a good example. In Venezuela, English is the required foreign language in the high school system. There are, in Venezuela, some 5,000 teachers teaching English as a foreign language all over the country. Of these 5,000 accredited teachers, some 30% have had no special training in the teaching of English as a foreign language. The teacher training institution, on the other hand, is located in the capital city. Its total production of teachers is relatively small, and a still smaller number have received training in teaching English as a foreign language. Thus, the greatest need seems to lie in the area of in-service training to close the gap between the relatively large number of inadequately trained teachers in the classrooms and the relatively small production of specialists in the teacher training institutions in the capital city (29, 32).

Under these circumstances, TEF, as an additive program suitable for in-service training, could have been tried out on experienced teachers needing training in teaching English as a foreign language

instead of the population of degree-seeking participants at the teacher training institution who constituted the test population. In effect, the same problem was reflected at all the test sites. Furthermore, the housing of the tryout at the teacher training institutions created certain indirect problems. In some instances, faculty at those institutions regarded TEP as a threat to their personal security; as a result, their attitudes toward it were negative, and in some cases, whether during the tryouts or afterwards, these attitudes were communicated to the participants. Both as a result of the attitudes of faculty and as a result of the announced experimental nature of the Program, participants, though working at teacher training institutions, did not receive academic credit or--in most cases--recognition of any sort for the completion of a two-hundred-hour-long program.

This fact tended to color the attitudes of participants, especially after the end of the tryouts. Indeed, in less developed countries, where economic competition tends to be severe, participants have the impression that they were actually deprived of opportunity because while they undertook the unrecognized experimental program, their colleagues were moving ahead of them in recognized paths. In some instances, there is some evidence that participants actually experienced financial hardship as a result of their participation, either during participation or afterwards. All of these factors are attributable to possible incorrect selection of the test population and incorrect placement of the tryouts.

3.0.2 Another problematic area lies in the follow-up phase. It was originally planned to follow-up participants into their classrooms

after the tryouts. In most instances this final step was not taken. The reasons are now unimportant; the causes are significant. Permission to conduct the TEP tryouts obviously was obtained from the respective institutions at which the tryouts were housed; however, except insofar as those individual institutions may have notified their respective Ministries of Education, apparently no serious attempt was made to secure the approval of the appropriate offices of government to assure both hospitable reception of the techniques taught in the Program--thereby assuring a fair test of the techniques in local classrooms--and hospitable reception of the candidates trained in these techniques. The effect on individual participants has already been noted above. The failure to receive permission from various educational agencies either to employ the techniques taught or to follow the participants into their classrooms seriously adumbrates the tryout results.

These factors combined to form some significant false impressions in the minds of counterpart faculty associated with the tryouts and in the minds of the participants. In general, these faulty views include the opinion that the version of TEP tested was a final version, officially endorsed by the Government of the United States, that the models presented in this highly official model were intended to be slavishly imitated by the participants, that the hardware used in the field tests was also officially approved and endorsed by the Government of the United States and that therefore software and hardware were inexorably wedded and inseparable, and that this massive program was indeed another weapon in a war of

linguistic imperialism intended to supplant the teacher training curricula of independent nations and independent scholars. It is not now clear what orientation procedures were employed during the tryouts at the various levels of involvement, but it is clear that the orientation procedures did not clarify these points in the minds of the majority of participants and counterpart faculty.

3.0.3 Still another, though lesser, problem seems to involve the status of AIR representatives. Their role was clearly misunderstood at many of the test sites, and questions continually arose regarding their qualifications as language teachers. Indeed, the research design did not call for the AIR personnel to be qualified teachers of English as a foreign language. Their purpose was related to the evaluation of the TEP. This matter too apparently should have been given greater attention in the orientation component of the tryout at each site.

Finally, and perhaps most seriously, the selection of tryout sites seems to have been undertaken without any special attention being given to the official language policies of the governments having jurisdiction over the test sites. Obviously, official language policy has had a considerable effect on the present view of the TEP experiment and its implications. In those less developed countries where English has lost official status, or where it never had any, the results of the experiment and the possibility of future utilization are viewed quite differently than in less developed

countries whose official language policy gives English a prominent position. It must be pointed out that the present follow-up, conducted during the summer of 1971, was somewhat impeded by international political developments quite unrelated to the TEF, and that these political side-effects have undoubtedly colored the impressions in the present report so that in what follows language planning may receive excessive emphasis. However, the importance of language planning has been stressed in other reports (L, 42); and it is probably true that any future attempt to encourage widespread use of TEF will need to take much more specific account of the language policies of LDCs involved.

3.1 OTHER INHERENT PROBLEMS: There is still another problem that needs discussion, but it is not one that can be said to have been built into the research design of the TEF tryout; quite the contrary, it is one which is built into the TEF itself.

3.1.1 The very fact that the TEF field tests were conducted in five separate countries circling the globe and in the United States may suggest that TEF was intended to be global. The field tests and tryouts seem to have demonstrated again the extreme difficulty in designing global materials. At each of the tryout sites, attention was called to the difficulty of the Trager-Smith transcription system, on the basis that participants had already been trained in some other transcription system. This fact in itself is not sufficient to raise the issue of the possibility of global materials; it is, however, symptomatic. At each of the test sites, the

absence of phonological and syntactic materials particular to the problems of speakers of that language (or those languages in the case of Singapore and India) was cited as a serious problem for participants. Furthermore, at every site, attention was called to the fact that the demonstration class used in the methodology section was unrealistic in terms of number of students, unrealistic in terms of age of students, and unrealistic in terms of the elimination of classroom problems typical to the particular area.

These objections suggest some of the dangers of attempting to globalize a set of materials to be inclusively (or to be considered inclusively) adaptable to any situation. In any future attempt to encourage broad scale use of TEF or any similar product, account must be taken of both the linguistic and the pedagogical differences which exist from country to country and region to region. This concern is in no sense intended to deny the existence of a common core of information, linguistic and pedagogical; rather it is intended to call attention to the fact that the use of only a common core fails to nationalize or personalize instruction and therefore introduces an element counterproductive to administrative motivation and therefore to ultimate acceptability. It is likely that any product ultimately developed will need to have sufficient flexibility to be modified for use in any given country or region.

3.1.2 Essentially the same problem is also inherent in any attempt to design a global hardware. The present TEF hardware has built into it a number of serious problems. The hardware was chosen

fairly early in the development process (1, 11, 54), and the software was necessarily locked in on that choice. In the interim years, there have been enormous numbers of developments in the field of instructional technology; the technology of both audio presentation and visual presentation has improved.

The locking-in of the software to a single hardware package created a number of problems. The tape cartridge employed has proved to have certain inherent problems; specifically, after a certain number of hours of operation, the exact number not specifically determined, the tape tends to bind. Furthermore, since most tryouts were conducted under essentially tropical conditions, air conditioning was provided for the TEF installations, but the type of air conditioning provided, while it kept the rooms comfortably cool, was inadequate in terms of dehumidifying the rooms. High humidity in most test sites increased the tendency of the audio tape to bind in the cartridges.

The Fairchild projector, a fairly early model, demonstrated a tendency to consume projection bulbs at a relatively high rate. In addition, the projector appears to be quite noisy in normal operation. Film binding also constituted a serious problem. It has been noted above that upwards of half the films at some tryout sites are presently not usable as a result of binding, burning, and breakage. These film problems are factors both of the type of film cartridge used and of the projector itself. Thus, as noted above, the projectors at Hyderabad are out of service for lack of drive belts, and much of the film damage is the result of sprocket film drive rather than the

safer friction drives presently available. The type of film cartridges required are large and bulky, increasing packaging costs, shipping costs, and storage space requirements.

3.1.3 All of these problems perhaps point to the two central issues; namely, the loss of flexibility and concurrently the loss of multiplier effect. Since the hardware is of US design, it requires 110 volt, 60 cycle current, which is not readily available in any of the tryout sites. This fact immediately created problems in adapting available line current to the operation of the TEP hardware, thus adding to the tryout difficulties and increasing operational costs. Again, the fact of US manufacture made the acquisition of spare parts difficult, and at times, as in the Indian instance, impossible.

More seriously, the fact that the software was locked in on the particular hardware significantly reduced the possible multiplier effect because the software could be used only with the available hardware and therefore was specifically limited by the number of consoles immediately available at the tryout site. It is quite likely that utilization of the Program might have been greater after the tryouts if the Program could have been utilized without the necessity of maintaining or moving the consoles. This problem was aggravated by the fact that the early consoles employed one-piece cast plastic hoods which are extremely difficult to move. (Later versions provided hoods cut into parts which were to be bolted together; thus, the hoods were easier to move but harder to assemble.)

3.1.4 The feasibility checks tended to exaggerate the realistic life expectancy of both hardware and software (5, 14, 15, 19, 20, 21,

22, 23, 24, 25, 26, 44, 49, 59, 61). Evidence from the present follow-up study indicates that the maximum life expectancy of the audio tape and film cartridges seems to be three years and that the life expectancy of the film deck and projector is heavily tied to the availability of minor parts and of preventive maintenance. The concept of preventive maintenance seems to be lacking in some LDCs. Granted the absence of necessary preventive maintenance and of readily available replacement parts, the functional life expectancy of the equipment seems to coincide with that of the software; that is, the expectancy does not exceed three years. Indeed, in some instances it has proved to be considerably less.

In summary, then, the difficulty of operating and maintaining the present equipment, the loss of multiplier effect, and the apparently limited life expectancy of the entire package suggest the dangers of global hardware and tend to suggest that any subsequent attempt to promote wide scale use of TEP or any similar product must utilize a much more flexible approach to packaging of the software and must avoid locking in any function to a particularized hardware.

4.0 Current Interest in TEP

In spite of all the drawbacks demonstrated in the tryouts themselves and in the present follow-up, it is important to point out that enthusiasm for TEP is both high and nearly universal. While the faculty of the Instituto Pedagógico in Caracas seem to believe that the TEP in its present form constitutes a luxury product, it is still clear that the TEP did successfully train candidates, that the candidates trained tended to perform in a superior manner when they were observed

by their supervisors in teaching situations, and that the concept of TEP is viable for the purpose for which it was designed. Not only was there continuing interest in terms of teacher training both at the tryout center and at several private institutions, but also there was considerable interest among the military.

In Beirut, as noted above, there was considerable interest from the faculty of the Lebanese University. In addition, faculty at AUB see the possibility of a more portable version of TEP as quite useful in in-service teacher training and as a supplementary device in special short-term seminars. In a country as relatively small geographically as Lebanon, a truck-mounted version of TEP could easily be transported throughout the country and, given a convenient portable reliable power supply, could be parked in any given place for as long as it was needed.

In India, while there is continued interest in TEP as a device for training teachers of English, the language policies of the Government of India suggest that a much greater capability for TEP lies in the potential of modifying it to train teachers of Indian languages. In India the multiplier effect becomes a critical factor; thus, greater flexibility in packaging as well as modification to other language format define the limits of use.

In Singapore modification is, as already noted, under way to adapt the product to the specific needs of the various SEAMEO member nations (62, 63, 64). Reports from the various member countries (12, 33, 52) indicate some of the possible uses. The present follow-up study, however, included investigations beyond the tryout sites.

4.1 A COUNTRY-BY-COUNTRY REVIEW:

4.1.1 There are a number of possible sources of interest in Brazil. The Instituto Brasil-Estados Unidos, which operates a number of centers in Rio de Janeiro, is constantly in the process of training and retraining teachers. A contract group of teachers was sent to the United States for training last year, and in the course of that experience a number of them were trained in TEP. The teachers so trained were helped by the experience. The IBEU indicated an interest in acquiring and using a modified version of TEP for internal use at least on an experimental basis. The Yazigi Institute, headquartered in Sao Paulo, operates a chain of hundreds of schools all over Brazil. It too has indicated an interest in the possibilities of a modified version of TEP for teacher training. TEP might also prove useful to the official project known as PREMEM. The Associations of Teachers of English have demonstrated a real interest in a product like TEP.

Finally, Ao Livro Tecnico, the major textbook publishing house, has indicated interest in modifying and distributing TEP not only in Brazil but in all Latin America. The impediments are present cost, the limitation imposed by the hardware, the need for technical modification of the software, and simple unavailability. (ELS either has allowed or is in the process of allowing its stock of TEP materials to become depleted.) In general, it would be fair to say that the USIS and USAID local offices would be supportive of TEP in modified form.

4.1.2 The principles of the last Ditchling conference have been

widely promulgated, and there is clear evidence of a desire for cooperation between England and the United States in the matter of improving the global availability of English. Those entities concerned with the training of teachers of English as a second/foreign language all showed interest in the TEP. The British Council in all probability would be interested in supporting further experimentation with TEP through its global network of posts. The newly established Colchester English Study Centre, technically a subsidiary of the Oxford University Press, could be interested in the use of TEP on an experimental basis whereby the Centre could contribute to the modification of TEP and could employ it with some of the teachers being trained at the Centre. The informal ties between the Centre and the University of Essex and the British Council could facilitate British use of TEP not only in England but in the global network of British Council posts. The mission of the Centre has been specifically defined as ". . . cater [ing] for specialist demands in English language teaching."

The Colchester English Study Centre aims to provide: Specialist courses for the student wishing to improve fluency and ability in the English of his work, profession or specialism. Tailor-made courses catering for the English language requirements of firms and organizations. Teachers' training courses-- either designed for specific teaching situations or covering particular aspects of English language teaching methods and materials. (68--ital. added)

Clearly, the objectives of the Centre can be enhanced by the addition of TEP to its capabilities. Furthermore, the Department of Education in Tropical Areas of the Institute of Education, University of London, also could have an interest in the use of TEP. The department provides training leading to the Graduate Certificate

in Education of the University of London or to the Associateship of the Institute of Education, both with special reference to work in tropical areas (largely Africa). The curriculum provides a number of options including among others:

- Teacher education overseas;
- Teaching of specific subjects in the curriculum
(including English);
- Preparation of textbooks;
- Use of audio-visual aids. (71)

All of these options have clear implications for the inclusion of TEP in the capabilities of the Department. However, the existing version of TEP would require some modification in terms of cost and multiplier effect before it could be gainfully employed by the various organizations mentioned. In addition, considerable interest was expressed in the use of the TEP model to train technicians in the field of instructional technology. For example, language laboratories have been widely proliferated in LDCs during the recent past. The British Council has been most generous in supplying such laboratories. Regrettably, in order to be used effectively, language laboratories must be maintained. At present, in certain global areas, the British Council maintains itinerant laboratory specialists who visit the various supported installations regularly and perform all maintenance operations. Such a system is somewhat inefficient, since immediate maintenance is rarely available, and a laboratory can be partially or even wholly shut down for much of the time period between the visits of the specialist. There is a clear need to train local specialists. The TEP could provide the model for such training

in a three phase structure:

1. Specialist tours all sites and brings them up to operational level.
2. Specialist conducts centralized training seminars for local maintenance personnel.
3. Specialist supervises on-site work by centrally trained maintenance personnel.

The TEP model, adapted to this purpose, could be used both in the centralized training seminars and as the mechanism for refresher courses at the local sites. This process would reduce the burden on the itinerant specialist and would make it possible for him to undertake more difficult maintenance operations and to respond to urgent need while routine activities could be handled by the trainees on-site.

Thus, it would seem possible to locate one or more TEP modules at both the Colchester English Study Centre and the Department of Education in Tropical Areas at the University of London, to coordinate modification of TEP (for both English teacher training and language-laboratory maintenance training) through the British Council, and to field test the results through the global network of British Council posts. Such a cooperative approach would broaden the base of TEP since the modification could include both British English and a considerably diversified pedagogy.

4.1.3 The situation in Lebanon is somewhat more complex in the sense that questions of language policy are involved. French has long been the major language in Lebanon, although the great bulk of the population is Arabic speaking. In recent years, French has lost some of its prestige and English has gained some. The present government appears to be favorably disposed toward the use of English as a language of wider communication. The importance of English both in terms

of tourism, a major industry in Lebanon, and in terms of advanced education has been recognized. The American University of Beirut, however, is a multipurpose institution serving an area much greater than Lebanon.

While English is basically the language of instruction at the American University, the population served is so diverse that the use of English at AUB is unlikely to have an important effect within Lebanon itself. (Here it would seem to be most useful to encourage modification of the TEP at the American University with field testing of the modified version conducted at the Lebanese University and in in-service training through locally organized in-service seminars conducted through the Ministry of Education for teachers at the elementary and secondary levels.)

Wider application of the TEP, in a modification of its present form and in a much more portable form, obviously depends heavily on developments in the political arena. Nevertheless, through the modification of TEP at the American University, utilization can be encouraged at the American University in Cairo and elsewhere in the region. More importantly, a growing preference for American English in such recently independent entities as Bahrain and in such developing areas as Kuwait can be served through the regional availability of TEP specifically modified linguistically and pedagogically for Arabic-speaking countries.

4.1.4 The present language policies of the Government of India stress the use of local languages to the detriment of English. Gradual transition of the educational system at all levels to the use of local language is going to place a heavy strain on the educational system of India as a result of the present lack of available textbook materials in some local languages and as a result of the inherent

geographic isolation of populations. While English will undoubtedly continue to be an important language of wider communication, the need to provide bilingual training in Indian languages will constitute the greater educational effort. Within this framework, a version of TEP modified to the English linguistic situation in India and capable of a much greater multiplier effect probably should be developed through the Central Institute of English. However, since the greater need lies in the areas of training teachers of various Indian languages as second languages, it would seem quite feasible to develop modifications of the TEP model specific to a number of Indian languages, and with much greater multiplier effects, through the Central Institute for Indian Languages.*

The variations of TEP to be evolved in India must not only be specifically adapted to the linguistic and pedagogical situation of India and to the need for a far greater multiplier effect, but they must be adapted either to the use of mass media or to easy portability or both, as a function of the enormous land mass of India and as a function of the size of the population to be trained. Coordination of an effort involving the cinema industry of India and the two language centers mentioned above through the Ministry of Education might do much to produce an economical educational tool suitable to the unique problems of India. Again, any such effort clearly depends

*Dr. Albert Marckwardt, who visited the CIE shortly after I did, sees some conflict of interests between the CIE and the Central Institute for Indian Languages. Certainly, the latter organization presently receives greater support from the Ministry of Education. The newer entity has greater freedom in its activities and a much broader scope of work. It also has the financial resources to permit it to develop a more diversified staff.

upon political developments, since the attention required by such a project can only be provided in a relatively stable environment.

4.1.5 While the efforts of the Regional English Language Centre in Singapore in modification of TEP have been important, there are a number of other possibilities available. INNOTECH, for example, operating as another agency of the SEAMEO member nations, can provide a research design and a network of research-oriented specialists capable of an evaluation of TEP modification at a level of sophistication rarely available elsewhere. On the other hand, since both RELC and INNOTECH are concerned with the whole spectrum of problems in the SEAMEO member countries, the problems of Singapore itself might not receive the attention they require. The Educational Television Section of the Singapore Ministry of Education has both the technical sophistication and the available linguistic and pedagogical specialists to create a modification of TEP specific to the problems of Singapore and adapted to the existing and planned mass media capabilities of Singapore (2). Such a modification could, in the long run, have implications for other areas in which the means of mass communication have developed along lines similar to those available in Singapore; for example, a model of TEP viable in Singapore might also prove useful in Hong Kong or in other urban centers in Southeast Asia. Thus it would appear that two separate developments are possible in Singapore --one directed towards all of the SEAMEO member nations conducted under the auspices of SEAMEO through RELC and INNOTECH, and a second concerned directly with the language teaching problems of Singapore itself with its unique linguistic and geographic problems.

The development of TEP as a model for the training of teachers of English could be accompanied by collateral development of models for the training of teachers of the other three official languages of Singapore. (It is to be noted that any materials specific to the Chinese of Singapore would not necessarily be available for use in other Chinese speaking areas since Chinese is a diversified linguistic entity--not a language, but a language sub-family.) Such development might ultimately assist the Government of Singapore in clarifying for itself and for its people a language policy which is consistent with its economic and political aims and which takes into full account the linguistic problems of bilingualism and of second vs foreign language (41, 42).

4.1.6 The Ministry of Education of the Government of the Republic of China has recently expanded compulsory education through grade nine, and has made English a required foreign language in grades seven through nine. English has been and will continue to be a required foreign language in grades ten through twelve for those students who continue their educations into those grades. English is and will remain a required subject in the undergraduate curricula of all government supported universities. Under these circumstances, there is an enormous need for the training of teachers of English. While it is possible that the changing political situation may affect the status of English, it is likely that English will remain important as a commercial and educational language. The status of English teaching in Taiwan is already weak; the added burden can only worsen the situation unless

some rather startling breakthrough is made.

At the present time, there is no single entity capable of undertaking the modification of TEP, but a consortium consisting of Taiwan National Normal University which has the linguistic expertise, of Kuangchi Program Service (a quasi-official agency concerned with the development of instructional technological materials), and of the Bureau of Education of the Taipei Municipal Government which has the need and the field testing capability could produce a viable model of TEP which could help in the upgrading of teacher training in the city of Taipei initially and in the country as a whole in the long run. There is some evidence that the Asia Foundation might be willing, in this instance, to lend financial support to such an undertaking. The basic problems here as elsewhere revolve around the need to make TEP specific to the linguistic and pedagogical situation of Taiwan and to adapt TEP to the available media for transmission, which would significantly increase the multiplier effect.

It is in a sense unfortunate that Taiwan was not selected as one of the official tryout sites initially, both because Taiwan National Normal University was willing and anxious to participate and because the difficulty of acceptability might have more easily been overcome at an earlier date. (It must be noted that the Republic of China does not receive assistance from USAID.) Nevertheless, even in view of the changing political situation, much might be accomplished in improving the training of

teachers of English as a foreign language if such a cooperative effort could be undertaken. An important element in Taiwan is the fact that production costs for printed materials and for audio-visual materials are considerably lower than they are in many other areas. For example, the Asia Foundation has presently funded the filming of a set of materials for local use at an approximate cost of US \$1,200 per 30 minutes of film running time.

4.1.7 The situation in Japan is interesting in the sense that there appear to be two quite different points of view. The Ministry of Education takes very little cognizance of English in an official sense. The educational system is undergoing periodic review, and there seems to be considerable likelihood that the educational system will alter in the next three years in the direction of the model employed prior to World War II and the period of the introduction of a US educational pattern; that is, a pattern is likely to develop in which the system is atomized into three separate tracks, only one of which will lead to the university. (The fact that such a trend may encourage even greater elitism is presently irrelevant.)

Such a diversification of the educational system is likely to decrease the official prestige of English. In addition, the attitude of some educators, closely tied to Japanese economic expansion, tends to reflect a certain amount of linguistic imperialism; that is, the attitude seems to demand greater teaching of Japanese as a foreign or second language in areas of Japanese economic influence rather than a greater effort to employ English as a language of wider communication (37, 43).

On the other hand, there is wide popular interest in learning English; the existence and health of vast numbers of commercial enterprises concerned with the teaching of English as a foreign language offers evidence of the demand (3,4).

The contrast between the position of the Ministry of Education and the evident popular demand constitutes a matter of concern for teachers of English within the official school system. Since the posture of the Ministry of Education includes little official attention to English, in-service training of teachers has fallen to the professional associations of teachers rather than to agencies of the school system. Professional associations are currently seeking the means to improve the level of English teaching. In their quest, they are turning to the universities which lack the capabilities of assisting them in part because they are also the victims of policy, in part because educational systems tend to be conservative by nature. The professional associations are also turning to quasi-official agencies like the English Language Education Center and to the private commercial schools, and these are in a more flexible position so that they can be helpful. The national television industry (NHK) is meeting some of the demand for English language instruction through nationally televised classes, but it is not meeting the need for teacher training.

Finally, but by no means unimportantly, Japanese industry is very much concerned with English teaching. Large electronic manufacturers who market language laboratory equipment and other electronic educational aids are aware that their sales will be improved if they can offer

software compatible with their hardware. As a result, a number of electronic manufacturers maintain staffs of linguists and materials preparation specialists. To a certain extent this latter development is both a boon and a problem; it is a boon in the sense that important research is being supported and some materials are being produced; it is a problem in the sense that the manufacturers are more concerned with profits than with standards of acceptability within the language-teaching profession.

Those manufacturers involved in this area are producing both materials for the teaching of English to supply the local demand and materials in Japanese to supply the developing international market, but they are not presently concerned with materials designed for the training of teachers in either language. Obviously, manufacturers view TEP as a viable product; thus, it is possible that commercial agencies would support the necessary research to modify TEP linguistically and pedagogically for use in Japan. However, the absence of strong interest on the part of the Ministry of Education tends to limit the potential domestic market for a product of the size of TEP. But the potential international market is important if a model of TEP compatible with the hardware of a particular manufacturer or of various manufacturers can be devised and can be legally protected against plagiarism.

A most interesting possibility lies in the potential of a consortium among NHK, a publisher of conventional pedagogical

materials (like Obunsha [75]), and a manufacturer of electronic equipment (like Akai [65] or SONY [74]). Such an arrangement could ultimately interest the Ministry of Education, and in the interim it could assure both high quality production and a wide distribution network, both internally and globally.

4.1.8 Because American Samoa is attached to the United States, its situation is somewhat like that of Puerto Rico and unlike that of any of the global areas discussed earlier. There are obvious differences between Samoa and Puerto Rico--in the global spread of the native language (Samoan vs. Spanish), in the number and previous training of the available teacher force, in the size of the target population, and in the logistic proximity to the continental United States. Nevertheless, language policy can more directly be influenced by the Government of the United States in both instances.

At present, in both instances, while there is some support for linguistic separation, the basic thrust is toward functional bilingualism, and the pedagogical problems revolve around the teaching of English as a second rather than as a foreign language. Regardless of official policy, the fact is that significant portions of both populations migrate to the continental United States in quest of better economic opportunity, and both populations succeed or fail in that quest largely in direct proportion to ability in English. While TEF would be a significant addition in both areas, it may be more urgent and more significant in Samoa. Puerto Rico has a well developed teacher education program, and its physical proximity to the continental United States makes it easier for Puerto Rico to

draw upon academic expertise readily available on the mainland. In addition, Puerto Rico has a well developed university system of its own, while Samoa has only a recently established community college.

Samoa has been engaged in a massive experiment involving teaching by television. The present evidence is that the felt need of the population requires greater diversification of the system demanding less reliance on television teaching and greater reliance on live teachers in the classroom. This view would certainly be substantiated by much current research in psycholinguistics and sociolinguistics. The need to diversify the present educational system in Samoa and the intent to provide both bilingual education and full education for all children increases the teacher demand far beyond the available supply and even far beyond the immediate capabilities for training either in Samoa or at immediately available institutions in Hawaii (8, 47). Under these circumstances, a modified version of TEP, adapted both for use on the existing television educational system and for in-service and pre-service seminars to be conducted by the Department of Education of the Government of American Samoa and through the Community College, could do much to alleviate the immediate shortage of qualified teachers.

In Samoa, diversification of the TEP model to the teaching of other basic-skill areas could also be beneficial. It would appear, for example, that the TEP model might serve for the development of a curriculum to prepare teachers in basic mathematics, in basic science, in language arts, in reading, and in a number of other areas applicable

to the elementary curriculum. Once again, it would need to be kept in mind that TEP is not and should not be a substitute for a teacher training curriculum at a teacher training institution, but rather that TEP is an additive program (see discussion Section 3.0.1, pp. 16-17) designed to assist in in-service training or to provide temporary pre-service training either in addition to a regular curriculum or as a gap-filler until a regular curriculum can become available.

The situation in Samoa appears to be approaching critical proportions and, if something is not done rather quickly, a significant number of children may lose the opportunity for adequate educational opportunity. These comments are in no sense a disparagement of the efforts of the Government of American Samoa or of the Department of Education; rather these comments are intended simply as a recognition of a situation which exists as the result of extreme population growth, limited resources, and a well-designed experimental program which simply did not meet the expectations of its target population no matter how well it may have met its material objectives.

4.1.9 While the situation in Puerto Rico differs in many ways from that in Samoa, the immediate need for in-service and pre-service training of teachers of English is somewhat parallel. The importation of "Newyorican" teachers into Puerto Rico is placing a burden on existing in-service and pre-service facilities which could be alleviated through the use of an appropriately modified version of TEP.

4.2 OTHER AREAS: Obviously, the number of countries visited in the context of TEP was limited by time and available funding. However, there is some evidence (in part as demonstrated by some of the names listed in Appendix I) of interest from areas not visited. Interest has been indicated by individuals or groups contacted in other ways than by travel from Argentina, Bahrain, Chile, Indonesia, Korea, Kuwait, Nepal, Saudi-Arabia, South Africa, South Vietnam, and Trinidad. Should any development or re-development of the TEP project be undertaken, it will be important to diversify the base of the project as widely as possible. The level of interest, not only in the countries visited but in those here reported but not visited, has been so high that there seems to be every present expectation that many LDCs can be involved in direct participation and support of this project. Obviously, the involvement of individuals, organizations, and institutions in the various countries mentioned will depend entirely upon the level of interest in the United States and upon the capability to revise the TEP into a more useful format.

4.3 COMMERCIAL INTERESTS: The level of interest demonstrated in TEP not only in the academic and governmental spheres but in the private sector is worthy of note. While governmental and academic agencies in general tend to be concerned about possible costs even though they demonstrate strong interest, the private sector appears much less concerned about supporting such a venture. Later in this report, it is recommended that within the United States, development be undertaken through the academic community rather than through the private sector; however, the interest of the private sector in all areas

visited was so high that the involvement of commercial publishers and manufacturers in other global areas simply cannot be ignored as an important possibility. In the same way that it will be important to involve as many LDCs as possible, it may be important to initiate early negotiations with the private sector in the involved LDCs to garner as much support as possible from that portion of the economy.

4.4 SUMMARY: The previous discussion points up rather clearly two major points in regard to the TEP. First, while the TEP is a viable product which can be successfully used in certain kinds of situations, it cannot be so used in its present "global" format but should be modified to fit specifically into the linguistic and pedagogical needs of the place in which it is to be utilized. Second, the use of TEP or any similar product in any particular place is directly dependent upon the official language policy and development policy of that locality, and it is pointless to employ TEP (regardless of its merits) if its objectives or its products are unacceptable or considered counter-productive to the political and economic realities in the place it is to be used.

Obviously, both of these reservations are only meaningful if one starts from the assumption that TEP has been demonstrated viable and should be used. It seems perfectly clear from the field tryouts both in the United States and outside the United States, from the attitudes of participants, and from the interest of educators and organizations in the private sector that these basic assumptions have sufficient validity to accept them as a starting point. If TEP is viable, and if there is interest in its continued use, then

a strategy for its utilization and an estimate of the costs of such a strategy appear to be necessary. The following recommendations, based on the assumption that TEP should be utilized in some manner, attempt to evolve such a strategy. In the interest of communication, the recommendations are not arranged in a rigid order of preference priority, but rather are arranged in a priority based on cost.

5.0 Recommendations

5.0.1 In considering these recommendations, it must be remembered that absolute faith in the ability of education to solve all problems is primarily a phenomenon of education in the United States. In the LDCs, the evidence is that the overwhelming faith in the efficacy of education either does not exist or has had a very recent development. In spite of its recent development in LDCs, absolute faith in the power of education has already engendered a certain amount of cynicism, because education not only has not solved all problems immediately, but in fact in some instances has engendered a whole new set of problems.

It must also be remembered that language policy is in many LDCs not a policy based on linguistic information but more often on political necessity or expediency. Noss, in his article on "Politics and Language Policy in Southeast Asia" (42), cites three kinds of language policy: 1) Official language policy--which he defines as "the practice of government as to which language it recognizes and for what purpose"; 2) Educational language policy--which he defines as "the practice of responsible authorities who control public and private education concerning the use of language media and the teaching of language at various levels: i.e., what they require, . . . allow, . . . forbid,

and . . . provide"; 3) General language policy--which he defines as "the practice of government with regard to sponsoring or condoning the use of language in sectors other than education . . ."

He further distinguishes among national languages--indigenous languages identified by government as principal; vernacular languages--any indigenous languages other than the national language; foreign languages--"any other language relevant to educational language policy of some kind in a given country"--and second languages--any non-indigenous language to which the government gives special prominence. He points out that the use of the term second language cuts across the other three categories and is not of the same order since, for example, the national language may be a second language to some citizens of a given nation.

(These definitions are generally consonant with the prior discussion, except that the technical distinction between a second and a foreign language is also implicit; that is, a second language is commonly taught in a milieu where it is national, and a foreign language is not, so that English is a second language when taught in the United States and French is not.) This discussion has been inserted just before the formal recommendations because the recommendations assume that degrees of language policy and linguistic category must be taken into account in the implementation of any of the following recommendations.

5.1 HARDWARE: First, the present hardware--i.e., the Fairchild projector and the film cartridges required by its use, the Raytheon tape deck and the audio-tape cartridges required by its use, and the console or study carrel composed of the plastic dome and plastic or aluminum support table, the built-in fan, and the requisite lamp--should be abandoned. The hard-

ware package, initially a good idea, has been demonstrated to restrict potential use of the TEP excessively, to be difficult to maintain, to be difficult to transport, and to add unnecessarily to the cost of the TEP. Deletion of the hardware in itself constitutes no cost to project development, although it implies repackaging of the software.

5.2 STOP-GAP OPTIONS: At this point, a number of options become available.

5.2.1 It is possible to prepare the existing TEP software in a more flexible package at no significant additional project development cost, although duplication cost of approximately \$6,500 per set of materials would be involved. It is also possible to modify the existing software package in a number of ways and with varying costs.

5.2.2 Thus, it is possible to retain all the existing scripts, tapes, and films, but to mark in the linear program the points at which users might insert branching programs specific to their individual linguistic and/or pedagogical needs.

5.2.3 It would also be possible to retain the basic structure of the software in its present format, but simply to make all necessary revisions in the printed materials. This would necessitate retyping some 8,000 pages of material, but the cost would be small. The new material should be prepared in "photo-ready masters" so that users could duplicate necessary sets conveniently at their own cost.

5.2.4 It would be possible to retain all existing scripts, but to remake all the films on the basis of data gathered during the try-outs. Such a procedure would increase the attractiveness and utility of the materials. (It is unnecessary to propose a modification of the existing audio-tapes because the master tapes exist, and only more

flexible packaging of copies would be necessary.)

5.2.5 It would be possible to rework all parts of the existing materials to correct recorded errors and at the same time to shorten the whole presentation, but without modification of existing scripts.

5.2.6 It would be possible to modify the entire program, retaining the existing format and assumptions, but broadening the pedagogical section, for example, to include other kinds of classes, eliminating the section on suprasegmental phonology, eliminating the transformational section of the grammar, modifying the transcription system employed in the phonology, but not in any significant way altering remaining scripts, sequences, or techniques. (Such a modification would necessarily require remaking all films, but would not necessarily require remaking any tapes and would not necessarily require re-typing all of the written text material.)

5.2.7 The issue of distribution enters into the discussion at this point, because the intended distribution must in part determine whether video-tape or film shall be used, and if video-tape is to be used, what size and what quality of resolution shall be taken as standard. Video disks have also been investigated, but their state of development is such that it is not at this time possible to recommend their use.* All of these options, summarized in the following table of relative costs, must be regarded as stop-gap measures,

*Video disks, developed initially in Germany, are still in experimental format. It would appear that for large quantities of stable material, they might be feasible. However, it would be fair to compare video disks with video tape on the same basis as one compares recorded audio disks with audio tape; e.g., the disks are more expensive to produce and less flexible because they are "pressed" and impossible to edit. They are breakable, difficult to store, subject to warping, difficult to ship, and they require more specialized equipment both to produce them and to use them.

COST APPROXIMATION
TEP--Immediate Use

Table 1

ACTION	ESTIMATED COST	AVAILABLE ALTERNATIVES	ESTIMATED COST
1. Eliminate present hardware	none	not applicable	not applicable
2. Prepare existing TEP software in a flexible package (i.e., video-tape, audio-tape cassettes)	\$6,500 (per set) (set duplication costs only)	may be sold at cost (or cost plus) to participants	not applicable
3. Retain all existing scripts but add new tapes specific to the linguistic needs of participants	\$1,000 per set of 7 X number of LDCs (or languages) involved plus duplication	Contract with an agency outside the US to do taping	\$700 per set of 7 X number of LDCs + duplication
4. Rewrite all text material to correct all recorded errors only	\$10,000 to create new photo-ready master + duplication	not applicable	not applicable
5. Retain all existing scripts and tapes, but remake all films from existing scripts	\$100,000 to create new film masters \$6,500 per set to duplicate for use	Contract with an agency outside the US to do the filming	\$52,000 to create new master \$6,500 per set to duplicate
6. Shorten existing software to correct all recorded errors and mark points of branching inserts (includes remake of all existing films)	\$200,000 to create new master set \$6,500 per set to duplicate for use	Encourage participant LDCs to make appropriate branch programs with US technical assistance	No direct cost but c. \$20,000 per year per LDC to support technician
7. Modify existing software to correct all recorded errors (including remake of all existing films)	\$225,000 to create new master set \$6,500 per set to duplicate for use	Prepare modules for special users like BIA, Samoa, etc.	\$10,000 per master set for each module \$6,500 per set to duplicate

because they do not correct the basic difficulties in the TEP. Such measures, however, would serve to get TEP into immediate circulation.

Inherent problems relate to contractors to undertake this operation. In all probability, a commercial publisher would have the technical facilities and an available distribution network to undertake the activity so long as technical changes in the content of the program proper were not involved. Again, the question is compounded by the opportunity to conduct the activity either through a publishing organization based in the United States and having a global sales network or through a publishing organization with a strong base in a foreign country or region having a sales network only in the country or region but having in addition greater acceptability to national or regional ministries of education and teachers.

Obviously, the question of copyright must be raised; if the distributor is based in or represents a country which is not a signator to the international copyright convention, it is difficult to protect the product; indeed, even if the distributor is based in a signator country but sells to a country which is not a signator, the difficulty exists. Whether or not this is even an issue depends upon whether the product is to be sold for profit or distributed at cost.

The use of a commercial publisher, wherever based, assumes a desire on the part of that publisher to derive a profit. In this sense, it may be advisable, even for the stop-gap options, to turn to a university or other non-profit or not-for-profit organization as distributor, since the profit motive would not be a factor and the product could be distributed at cost or cost-plus. If the intent is to

encourage the widest possible use, product cost is a significant factor; in turn, profit margin is a significant related factor.

5.2.8 If the stop-gap approach is selected, in whatever form the product is to be distributed, it is proposed that the product--a linear, shortened version of the software only, with appropriate marking in the program to designate points at which branching programs specific to the linguistic needs and pedagogical situations of potential users may be inserted--should be distributed to potential users on a contract basis, requiring by contract that the user 1) keep records of use for experimental verification; 2) provide branching programs specific to the linguistic and pedagogical needs to be inserted at the points marked and do so at his own expense; 3) modify the software to existing available hardware either in the user's possession or readily accessible to him, which is both relatively inexpensive and easy to maintain at his own expense; 4) report back on the nature of the linguistic, pedagogical, and technical modifications made, and feedback all problems and pertinent developments for immediate clarification or correction by the principal contractor, and 5) duplicate all copies necessary to achieve a significant multiplier effect at his own cost.

At the same time, the basic distributor (i.e., USAID) shall agree to 1) make the single master-copy available to the potential user at cost (or cost-plus) with permission to duplicate; 2) agree to furnish the user with specialist personnel either in linguistics or in instructional technology for no more than one year to assist the user in modifying the software for local use (and also to help develop the capability for continued effort in the locale), and 3) provide

insofar as possible restricted copyright protection to sub-distribute copies of the granted master-copy within a specific geographic area, for a specific period of time, at a profit calculated to recover the user's investment if necessary (providing that the user is not an agency of government).

In every possible instance, if the user is an agency of government, negotiations should be conducted at the highest possible level of government to ascertain that use of the product is consonant with the language policy and development policy of the user nation. If the user is not an agency of government, then the user should be encouraged and assisted insofar as possible without embarrassing the Government of the United States, to himself conduct such negotiations with his own government and/or with the governments of the areas in which he plans or hopes to market the product. USAIT should also be willing to assist user nations by lending "language planners" to ministries of education or other appropriate ministries to aid in the development of language policy where none exists or where it has been recognized by the user nation that the existing language policy has not taken sufficient cognizance of linguistic reality.

In this way, TEP can become not only a vehicle of improved teacher education but a means to the evolution of relevant language policy. Regardless of the effect on language policy, these means may be the only ones to insure relevant use of TEP and relevant change in teacher education.

5.3 TOTAL REVISION OF TEP: As noted, the measures so far proposed are really stop-gap measures. What is really necessary is a total revision

of the TEP on the basis of all data accumulated from the original development through the end of the tryouts and field tests (e.g., from the original ELS proposal in 1962 through this report dated in 1971--a full ten year period of experimentation). The TEP is programmed, and it is difficult to "touch up" a program; a program ideally requires either total revision or no revision.

Total revision of the TEP would require considerable time, would cost quite a lot, and would require an additional series of tryouts and field tests. It appears that, in the lapse of time since initiation of the TEP project and in the face of the relatively high cost of that project, the basic fact that what had always been intended--a total revision of the pilot model--has been lost sight of. In the ten year period since inception of the TEP project, not only has an enormous amount of data accumulated around TEP (witness the attached bibliography which contains nearly fifty items relating specifically and exclusively to TEP), but an enormous amount has been learned generally about programming, about instructional technology, about the bases of language teaching, about teacher training, and about language planning.

All of these new facts bear upon the design of TEP. In short, tampering with the program as discussed in Section 5.2 above may be budgetarily expedient, but no amount of tampering will produce a revision of the total program such that the program will serve more effectively the audience it is intended to serve. Indeed, it may very well be that a piecemeal approach will ultimately cost more than a total approach, because a piecemeal approach simply cannot deal with the fundamental problems in the program which have caused it to be

rejected by some educators during its initial tryouts.

5.3.1 It is estimated that total revision of the TEP will cost approximately \$575,000 and will consume approximately 300 man-months of expert time spread over a calendar period of approximately two full years (see attached summary budget for approximate cost analysis, Table 2, p. 53). This cost does not include a second series of field tests and tryouts; however, it may be assumed that the second series of field tests could be conducted at relatively little cost, since those tests could be conducted by participating governments and institutions at their cost. Project costs, then, would have to be expanded only to the amount necessary to develop an experimental design for the tryouts, to conduct the necessary negotiations with foreign governments and institutions, and to provide for shipping costs of the experimental versions and the research reports. (It is not within the capabilities of the present report to estimate that amount realistically.) The total figure suggested could be reduced if the second model were produced with video-tape masters; the figure could also be somewhat reduced if some of the actual filming were carried on outside the United States.

5.3.2 Again, inherent problems relate to the way in which the task would be carried forward. It is proposed that the basic contract to redevelop the TEP be assigned to an academic institution in the United States, and that such a contract contain outside limits (i.e., \$575,000 and 2 calendar years), but that it not be highly specific and that the details of accomplishing the task be left to the discretion of the institution receiving the contract so that it may sub-contract

COST APPROXIMATION
TEP Re-development
Table 2

CATEGORY	AMOUNT	TOTALS	YEAR I	YEAR II
1. Salaries (predicated upon 300 man-months of specialist time distributed over 2 calendar years.)	\$240,000		160,000	80,000
2. Wages (see supplement) (predicated upon 150 forty-hour weeks of technician time distributed over 2 calendar years.)	47,500	\$287,500	31,666	15,834
3. Staff Benefits (calculated at 6% of total salaries and wages.)	20,125	307,625	13,416	6,709
4. Materials and Supplies (see supplement) (including all necessary raw stock and stock processing.)	85,000	392,625	56,666	28,334
5. Equipment and Rental (including acquisition of a number of pilot TEP models and computer-processing of data and manuscript material.)	65,375	458,000	43,582	21,973
6. Travel and Per Diem (for project staff and for necessary consultants.)	7,000	465,000	4,750	2,250
7. Overhead (calculated at 38% of total salaries and wages.)	110,000	575,000	73,333	36,667
TOTAL APPROXIMATION	\$575,000		\$383,113	\$191,587

SUPPLEMENT TO TABLE 2

Categories 2 (wages) and 4 (materials and supplies) might be reduced if video-tape were employed instead of 16 mm film. Some \$2,000 in wages would be saved. More importantly, category 4 (materials and supplies) might be reduced to approximately \$35,000 if 2 inch video-tape were employed. Raw stock and stock processing would cost approximately \$1,850 per hour for the 16 hours of visual running time contained in TEP for the production of two master sets. In addition, the use of 2 inch video-tape stock would reduce duplication cost to approximately \$1,300 per set of visual materials as opposed to approximately \$5,300 per set for 16 mm; thus, while text duplication and audio-tape duplication remain the same, the total duplication cost would be reduced to approximately \$2,500 as opposed to the \$6,500 cited above. One inch duplicates would be still less expensive. While the cost saving is impressive, it must be remembered that all LDC recipients may not have the capability of utilizing video-tape. It must also be pointed out that, while it is possible to copy video-tape on 16 mm film, the process is less than satisfactory and somewhat more expensive than direct duplication in either medium.

The percentages cited for staff benefits and for overhead are crude estimations. Practices of academic institutions vary considerably.

or assign those functions which seem amenable to such delegation as the work develops. It is further proposed that USAID assist the contract holder in every possible way to enlist the active participation of other governments and foreign institutions in the development phase so that--having participated in development--such institutions can be induced to field test the developed product both during the process of development and upon conclusion of the recommended contract period.

It is proposed that, should such a contract be assigned, negotiations with foreign institutions and governments and with other agencies of the Government of the United States be initiated at once; such negotiations will consume at least one calendar year, and that lead time should be adequate to the preparation of an institutional contract and to the identification of the funds necessary to commence operations (roughly 2/3 of the total figure quoted above, or \$385,000). Second year operational funds can be sought after initial operation has commenced and after there is some evidence of significant progress, if there is any significant indication that second-year funding will materialize.

It is proposed either that the academic institution given the development contract, presumably a non-profit association, be permitted to develop a not-for-profit wholly-owned subsidiary which will concern itself with the ultimate distribution of the materials produced under the terms of the proposed contract, or that the academic institution be granted permission to sub-contract the distribution to a commercial publishing venture which already has a developed global network for such purposes. Obviously, if a commercial publishing organization is involved in this way, and profit becomes a motive, the cost to each participating LDC will

be somewhat higher unless the USAID is prepared to underwrite the reasonable profit which a commercial distributing network would hope to derive. In order to continue real cost to participating LDCs at the lowest possible rate, it is recommended that a non-profit or not-for-profit institution or association be employed as distributor and the new product be made available to LDCs at cost-plus for distribution and duplication. The basic development cost is considered non-recoverable.

5.3.3 It is proposed that re-development include incorporation of all pertinent new information learned from first phase field-tests and tryouts into a target 100-hour linear program designed to provide all and only those aspects of teacher training for teachers of English as a foreign language which may be considered global, and that this material be "programmed" in the technical sense with points marked in the program indicating areas in which the participating LDC or foreign institution can insert additional material specific to the linguistic and pedagogical needs and practices of the participating entity.

It is further proposed that only a small number of "master" sets be produced; perhaps one including two-inch video tape, one including 16 mm film, and one including only visual stills (see p. 46 above for discussion of video disks), all accompanied by audio material in large-spool master-tape format so that it can be duplicated in any convenient audio-tape container, and by printed material in "photo-ready master" format so that participating countries or institutions may prepare printed materials in any convenient format from such masters. Thus, no specific packaging is recommended in order to provide the greatest flexibility in distribution, since only one master set would be

distributed to any participating country or institution, thus placing multiple-copy costs upon the participant rather than upon the basic distributor. It is proposed that such master sets be made available to participant institutions or countries at cost-plus to cover duplication costs and overhead for the proposed distributor.

5.3.4 A number of other recommendations must be included.

5.3.4.1 It is further proposed that, as in the case of stop-gap measures, all negotiations determining distribution to LDCs and foreign institutions be conducted by USAID at the highest possible levels of government to insure a use of TEP consonant with language policy and educational policy in the participating nations.

5.3.4.2 It is proposed that, to facilitate the development of branching programs to be inserted in TEP and specific to the linguistic and pedagogical needs of participants, USAID explore the possibility of lending specialists in linguistics, instructional-technology, or teacher training to participants either through existing AID capabilities, under the auspices of the Hayes-Fulbright Commission, or through new mechanisms to be developed as part of the TEP re-development project.

5.3.4.3 It is also proposed that, coincident with ongoing re-development of TEP, experimentation be undertaken to diversify the TEP model to serve the needs of teacher training in languages other than English and in areas other than language teaching. It is impossible to provide cost estimates of what such diversification would involve, but it is recommended that institutions be encouraged to develop pertinent proposals for the development of

such divergent programs, starting from the extant TEP model and from the information and experience which has accrued around TEP in the past decade.

6.0 Conclusion

Gratitude is expressed to the United States Agency for International Development, Office of Education and Human Resources, for the opportunity to survey the current TEP installations and for the opportunity to present this report. It is hoped that the recommendations contained herein will contribute to subsequent development of TEP and to a utilization of TEP that will assist LDCs and the profession of English teaching throughout the world.

6.1 DISTRIBUTION OF REPORT: It is recommended that copies of this report be distributed to all those who collaborated in its preparation during the summer of 1971 (as listed in Appendix I) as well as to those who helped to review it (as listed in Appendix II) in addition to whatever additional distribution is deemed advisable by USAID.

6.2 TEP LIBRARY: Finally, it is recommended that, whatever organization is charged with the subsequent development of TEP, one portion of any future contract require the development and maintenance of a library of materials directly concerning and relevant to the development of TEP. The history of TEP will be of importance to all individuals concerned with language teaching and language development in LDCs for the foreseeable future.

Respectfully submitted,

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10.0 APPENDIX IV
List of Abbreviations Used

AID	United States Agency for International Development (Also listed as USAID)
AIR	American Institutes for Research
AUB	American University of Beirut
BIA	Bureau of Indian Affairs
CIE	Central Institute of English, Hyderabad
ELEC	English Language Education Center, Tokyo
EIS	English Language Services, Inc. (prior to 1966)
EIS/WERA	English Language Services/Washington Educational Research Associates, Inc. (after 1966)
EPDA	Education Professions Development Act (Congressional legislation enacted in 1968)
IBEU	Instituto Brasil-Estados Unidos, Rio de Janeiro
LDC	Less Developed Country
NDEA	National Defense Education Act (Congressional legislation in effect prior to 1968)
NHK	Japanese Television Network (An agency of the Government of Japan)
RELIC	Regional English Language Centre, Singapore (SEAMEO)
SEAMEC	Southeast Asian Ministers of Education Council (The policy-making body of SEAMEO)
SEAMEO	Southeast Asian Ministers of Education Organization (An organization established by the governments of Southeast Asian countries to promote regional cooper- ation in education)
SEAMES	Southeast Asian Ministers of Education Secretariat, Bangkok (The executive body of SEAMEO)
SIU	Southern Illinois University
TEP	The Teacher Education Program (Developed by English Language Services, Inc., and the subject of the present Report)

USC	The University of Southern California
USIA	The United States Information Agency
USIS	The United States Information Service
USOE	The United States Office of Education