DESCRIPTORS- *PROGRAMED INSTRUCTION, *AUTOINSTRUCTIONAL
PROGRAMS, *SPANISH, *PROGRAM IMPROVEMENT, *COLLEGE LANGUAGE
PROGRAMS, TAPE RECORDINGS, LANGUAGE INSTRUCTION, AUDIOLINGUAL
SKILLS, INSTRUCTIONAL MATERIALS, TEACHING MACHINES, AUDITORY
DISCRIMINATION, STIMULUS DEVICES, PACING, SKILL DEVELOPMENT,
APPLIED LINGUISTICS, PROGRAM EFFECTIVENESS, LINDENWOOD
COLLEGE, ST. CHARLES, MISSOURI,

A BRIEF HISTORY OF THE ORIGINAL MORTON-MICHIGAN ALLP-II
PROGRAMMED SPANISH LANGUAGE COURSE IS PRESENTED. AN
ENUMERATION OF THE "TERMINAL REVISIONS" MADE ON THE PROGRAM
TO INCREASE ITS PEDAGOGICAL EFFECTIVENESS FOLLOWS. FOUR TASKS
COMPRISING THE PROGRAM INVOLVE INSTRUCTION IN SOUND
DISCRIMINATION, VOCALIZATION OF SPANISH SOUNDS, STUDENT VOCAL
OR GESTURAL RESPONSES, AND AUDIO AND WORKBOOK LESSONS.
REVISIONS MADE ON EACH OF THE FOUR TASKS ARE DISCUSSED WITH
REGARD TO (1) THE REVISIONS THEMSELVES, (2) THE PROCEDURES
FOLLOWED IN MAKING THE REVISIONS, (3) THE CONTENT OF THE
REVISIONS, AND (4) THE OBJECTIVES WHICH DICTATED BOTH CONTENT
AND PROCEDURES. THE RESULTS OF THE REVISION ARE SUMMARIZED,
AND MENTION IS MADE OF THE EFFECTS OF THE REVISIONS ON
EXPERIMENTAL STUDENTS ENGAGED TO WORK THROUGH PORTIONS OF THE
REVISED PROGRAM. (AUTHOR)

BR-5-1099
PA-48

FINAL REPORT

Project ALLP-IV

48

Project No. 5-1099-1-22

Contract No. OE-6-14-023

TERMINAL REVISION OF THE ALLP-II PROGRAMMED
SPANISH LANGUAGE COURSE

August, 1967

U. S. DEPARTMENT OF

HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

FINAL REPORT: Terminal Revision of the ALLP-II Programmed

Spanish Language Course (ALLP-IV)

F. Rand Morton

August, 1967

Lindenwood College

St. Charles, Missouri

I INTRODUCTION

Between the years 1960 and 1964, The U.S. Office of Education supported, in part, through Research Grants and Contracts the design and development of several audio-lingual programmed courses in modern foreign languages at the University of Michigan under the Project Directorship of Professor F. Rand Morton, of that University. One of the programmed courses developed and partially tested was that titled "A Programmed Self-Instructional Course in Spoken American Spanish." To permit this course to be given larger, field use, the U.S. Office of Education contracted with Lindenwood College, of St. Charles, Missouri, to use these materials as the sole instructional medium for first year Spanish instruction during the academic year 1964-65. Professor Morton relocated to Lindenwood College to supervise the use of the Program there. A report on this experimental use was published as a final report under the title "The Lindenwood Experiment--ALLP-III: The Trial Use of the ALLP-II Spanish Self-Instructional Program as the Sole Instructional Medium for First Year Spanish Students in a Liberal Arts College." (Contract No. OE-5-14-020), St. Charles, Missouri, September, 1965. In the concluding chapter of this report recommendations were made, based on the year-long experimental use given the program, for its improvement in various areas. In December, 1965 a continuing contract was awarded to Lindenwood College to implement and to execute the recommendations, in the form of revisions, made for the ALLP-II Spanish Program. The revisions recommended were carried out as a subject data for the present contract (OE-6014-023) for which these pages serve as final report. The subject data submitted to the U.S. Office of Education in fulfillment of the contract were as follows:

> 144 seven inch reels of pre-recorded tape
> 4 Student Workbook and Manuals for Task I tapes
> 2 Student Workbooks for Task II and III tapes
> 4 Student Manuals for Task II and III tapes
> 1 Student Workbook for Task IV tapes
> 1 Student Manual for Taks IV tapes
> 1 Teacher's Guide for use of ALLP Spanish Program
> 1651 voicing scripts (one script per program frame)
> (Task I Voicing Scripts in 3 vols.; Task II Voicing Scripts
> in 2 vols.; and Task III Voicing Scripts in 3 vols.)
> 4 Interim (orProgress) Reports

II METHOD

The revisions recommended and contracted for on the original ALLP-II materials are described with regard to procedures, content and objectives for each of the four tasks comprising the Program:

Task I

Revisions: Task I, as it appeared in the ALLP-II version of the Program, consisted of 271 audio frames whose only objectives was to train the student-learner to differentiate between the twenty-six Spanish phones and three final contours presented as models; to discriminate between these twenty-six phones and contours and "approximate" or pseudo-allophonic phones of English; and to transcribe each of the phones and contours with special symbol notation.

In the ELS revision of this Task, sixty-one additional frames were added, the last frame being numbered "ELS Frame 332." In both versions, all student responses were made by pencil and were confirmed, normally by beeps. Some thirty of the frames were labeled criterion frames, for which a key was provided in the voicing script and which frames were to be checked by a monitor or supervisor. Average workthrough time was between twenty-five to thirty response hours.

In the present version (ALLP-IV) of the Program, these initial 271 (or 332) frames have been omitted (or skipped) and the Program is commenced with Frame 333, corresponding in number to the first frame of Task II (ALLP-II or ELS version).

The 332 frames omitted from the present version need not be omitted by the student desiring to work through them. Indeed, it is recommended that the first Task of the original ALLP-II Program (or the ELS equivalent) be used whenever there is sufficient time for its inclusion in workthrough or when subsequent phonological control is deemed of major importance. When such is the case, the workbooks and tapes for these frames may be obtained from those sources holding the materials as designated by the U. S. Office of Education

When workthrough of the first 332 frames is not desired, the student may begin his Program workthrough with the first frame of the present Task I, numbered Frame 333.

a) Revisions

The first major revision of the present Program has, thus, been the physical omission from the Program of the initial sequence of "discrimination frames," together with the inclusion of a selected number of them, or their re-written equivalents, in the first Task of the present Program.

1. The present Task I may therefore best be described as a _fusion_ of the original Tasks I and II. The fusion has been accomplished in the following steps:

     i. The phone selected for treatment is first presented as a model.
     ii. The model phone is then presented in various patterns as a stimulus for a pencil response.
     iii. The model phone is then presented together with "close non-target" language approximate sounds for discrimination training.
     iv. The model phone is next presented for echoic vocalization.
     v. The model phone is then presented with approximate sounds for discriminative echoic response.
     vi. The model phone is then presented paired with a visual symbol.
     vii. The model phone is next presented as a confirmation of a student vocal response to a printed symbol.
     viii. The model phone is then presented in contiguous position with one or more other phones, for echoic response.
     ix. The symbol for the phone plus contiguous symbols is

presented as a stimulus for vocalization by student, subsequently vocally confirmed.

In a manner similar to that outlined above, all twenty-six phones taught by the Program, plus the three final contours taught, are presented to and shaped in the repertory of the student. Each phone of the target language presented is maintained in subsequent echoic or "reading" frames.

2. The second major revision of the present Task has been that of the inclusion of "limited lexical meaning" within its pedagogical content. In previous versions no lexical content, per se, was introduced. In the present version, a methodical inclusion and sequenced presentation of 543 items (or words) are included. The procedure is realized in the following steps and referred to as "picture frames":

   i. A "recorded pre-frame" discusses the "meaning" or interesting features" of the pictures included on the workbook page. These pictures, line drawings in their majority, number normally between six and twelve. The Spanish "equivalent" or "paraphrase" or "translation of the picture" is given in the pre-frame and questions are asked drilling the student in the echoic and delayed recall of the Spanish phrases given.

  .ii. The first frame of the series presents one of the pictures discussed in the recorded pre-frame, and provides the student with two utterances, one of which has been pair-associated with pictures during recorded pre-frame. Student chooses "correct" utterance and repeats it. Confirmation is provided.

 iii. Second frame in sequence presents same pictures in different order from preceeding frame, with same stimulus-response-confirmation technique.

  iv. Third frame presents pictures and asks for identification.

   v. Following frames may (depending on potential student repertory) elicit the use of the Spanish lexical item pictured through various types of questions.

  vi. A test frame concludes series by testing ability of student to correctly vocalize the Spanish lexical item when prompted by the picture.

3. A third major revision of the present Task has consisted of the inclusion of "Test Frames" (see above) which normally precede and follow each sequence of "picture" or "meaning frames." More than one trial, but never more than four trails, are provided for each test frame.

4. A fourth major revision of the present Task has consisted in the inclusion of "Translation Frames", these often inserted within a sequence of "picture frames." These frames, which were not employed in any previous version, require the student to render a given Spanish utterance into English, or visa versa. Vocabulary required is either

presented in a preceding recorded pre-frame or is taken from previous "picture frames."

5. A fifth and final major revision consists in the inclusion of "reading frames", not previously used. In these frames the student is provided with a Spanish test in his workbook. The text is read at normal speed by the model voice on the corresponding audio frame. At the conclusion of the reading, questions on the text are provided in the student workbook either in Spanish or English, each with a set of multiple-choice answers. The student is instructed to select the correct answer and his selection is confirmed on the tape.

Among those differences wrought on the earlier programs which may also be considered revision in the present are:

1. the inclusion of 180 new frames within the materials originally employed in Task II of the ALLP-II (or ELS) version.

2. revoicing of frames for better quality

3. re-writing of frames to shorten and employ new vocabulary

4. use of red ink for all Spanish symbols

5. use of drawings to illustrate articulatory positions for lips, tongue, and teeth for vocalization of various phones.

b) Procedures

Procedures followed in the present Task are similar in most respects to those employed in past versions of the Program. Three different machine modes (MCR, SCR, and Responser) are employed throughout the Task, each occuring on approximately a 33 1/3% frequency. All necessary instructions are provided in English text in the workbook, and, when desirable, the English text of a recorded pre-frame is also included. Response blanks and keys are also provided as in past versions.

All new vocal behaviors are shaped primarily through procedures of stimulus discrimination and response differentiation.

c) Content and Objectives

The 740 frames contained in Task I of the present version contain those materials, techniques and procedures to cause the willing student, working independently as per instructions, to demonstrate at the conclusion of the Task the following proficiencies:

1. identify as "Spanish" or non-Spanish the correct and/or incorrect vocalizations of the phones corresponding to the twenty-six phonemes taught by the Program, the three terminal pitch contours taught by the Program, and primary stress.

2. respond differentially (with 95% accuracy) to each of the segmentals taught when audited in isolation with the special symbol notation taught by the Program and (with no less than 60% accuracy) with traditional orthographic symbols.

3. vocalize echoically with near native-like replication each of phones and contours taught in isolation and in contiguous groupings up to a maximum of thirty as tauhgt in the Program.

4. transcribe (with no less than 70% accuracy) through immediate recall, after two auditions, in special symbol notation taught by Program any single breath-group utterance employed in the Program.

5. vocalize with no less than 50% accuracy as a response to textual stimuli (either special notation or traditional orthography) any transcription presented by the Program of a phonemic length not superior to thirty segmentals.

6. accept and produce certain conditioned allophonic variations (d〉 d; b〉b; g〉g; sr〉 rr) with near native-like accuracy.

Task II

Task II, in the earlier ALLP-II (and ELS) version, was entitled "Vocalization of the Sounds of Spanish" and, as described in the preceding section, was part of the material fuzed with Task I to form the new Task I of the present revision. There is no pedagogical relationship between the earlier Task and the present one. Rather, the revisions to be discussed in designing the present Task II are those which have been carried out on Task III of the ALLP-II (and ELS) version. This fact should be kept well in mind in reading the following material.

Task III of the ALLP-II (and ELS) versions contained frames numbered from 701 to 1216 J, which, including all lettered frames, provided a total of 680 individual frames. In the present version, the materials contained in "old" Task III have been divided numerically to form Tasks II and III. The frames themselves, plus new frames added, have been re-numbered consecutively from MII 1 to MII 400 (Task II) and MIII 401 to MIII 817 (Task III). This has been accomplished through the following revisions:

a) Revisions

1. Reduction in temporal length of each frame: In the ALLP-II version of Task III, each frame contained between thirty-five and sixty (plus or minus ten percent) stimuli requiring a vocal or gestural response from the student. In the present version each frame has been shortened to provide an overall average playing duration of four minutes, regardless of the number of stimuli provided. In a majority of cases, however, this temporal shortening of each frame has resulted in the removal of between fifteen and twenty of the original stimuli.

2. Correction of errata in voicing script and tape: All errata previously discovered through experimental student workthrough of the ALLP-II version were corrected for the present version both on voicing script and on tape.

3. Re-voicing of frames: All frames which were found to contain errata in text, or which required additional materials, were re-recorded in their entirety. In each case the voice (or voices)

employed in the original recording were again utilized for the re-voicing. All voicing and re-voicing was done with Ampex equipment similar in electronic characteristics to that employed in making original ALLP-II tapes.

4. Re-writing of frames: All frames which had required more than three trial workthroughs by experimental students were studied in the light of student errors and re-written to minimize the possibility of similar errors in later workthrough. Most frequently this re-writing of ALLP-II Task III frames required the substitution of troublesome lexical items and the design of a new sequential presentation of the linguistic material contained. It was found, on the average, that each frame requiring re-writing benefited optimally from a tri-part division, arranged sequentially, permitting each of the three "new" frames to present only two (often one) of the linguistic "habits" previously taught by the single "old" frame. The following table will illustrate the mothod used:

	Old Frame Beat	New Frame Beta-1	New Frame Beta-2	New Frame Beta-3
Linguistic Content:	Gamma 1-6	Gamma-1	Gamma-2	Gamma-1
		Gamma-2	Gamma-3	Gamma-2
			Gamma-4	Gamma-3
				Gamma-4
				Gamma-5
				Gamma-6

5. Addition of picutre frames: Picture frame sequences, similar in all respects to those described earlier as found in Task I, have been added to the original Task III materials to comprise the new Task II of the present version.

6. Addition of new frames to teach new structural patterns. Twenty-three new frames were written and voiced within the new version of Task II to teach grammatical or structural habits not previously taught in this portion of the program.

7. Addition of test frames: Test frames, similar in all respects to those described earlier as found in Task I, have been added to the original Task III materials to comprise the new Task II of the present version.

8. Pre-frame summaries: In the original version of the frames comprising this task, recorded pre-frame text was either printed in full in the student workbook or entirely omitted. In the present version few recorded pre-frame texts are included in the student workbook, but a summary of the content of each (in English) is provided.

9. Addition of "frame titles": In the present version, each frame is designated by a number (as in previous versions) and by a title. The Frame Title is normally composed in English, is often of a facetious nature, and attempts to provide a concise summary of the grammatical "problem" the frame in question is to "solve." (Frame titles for Task II and III are included in the compilation of linguistic content found in the appendix of this Guide.)

employed in the original recording were again utilized for the
re-voicing. All voicing and re-voicing was done with Ampex equip-
ment similar in electronic characteristics to that employed in
making original ALLP-II tapes.

4. Re-writing of frames: All frames which had required more
than three trial workthroughs by experimental students were studied
in the light of student errors and re-written to minimize the possi-
bility of similar errors in later workthrough. Most frequently this
re-writing of ALLP-II Task III frames required the substitution of
troublesome lexical items and the design of a new sequential pre-
sentation of the linguistic material contained. It was found, on
the average, that each frame requiring re-writing benefited optimally
from a tri-part division, arranged sequentially, permitting each of
the three "new" frames to present only two (often one) of the lin-
guistic "habits" previously taught by the single "old" frame. The
following table will illustrate the method used:

	Old Frame Beat	New Frame Beta-1	New Frame Beta-2	New Frame Beta-3
Linguistic Content:	Gamma 1-6	Gamma-1	Gamma-2	Gamma-1
		Gamma-2	Gamma-3	Gamma-2
			Gamma-4	Gamma-3
				Gamma-4
				Gamma-5
				Gamma-6

5. Addition of picutre frames: Picture frame sequences, similar
in all respects to those described earlier as found in Task I, have been
added to the original Task III materials to comprise the new Task II
of the present version.

6. Addition of new frames to teach new structural patterns.
Twenty-three new frames were written and voiced within the new version
of Task II to teach grammatical or structural habits not previously
taught in this portion of the program.

7. Addition of test frames: Test frames, similar in all respects
to those described earlier as found in Task I, have been added to
the original Task III materials to comprise the new Task II of the
present version.

8. Pre-frame summaries: In the original version of the frames
comprising this task, recorded pre-frame text was either printed in
full in the student workbook or entirely omitted. In the present version
few recorded pre-frame texts are included in the student workbook,
but a summary of the content of each (in English) is provided.

9. Addition of "frame titles": In the present version, each
frame is designated by a number (as in previous versions) and by a
title. The Frame Title is normally composed in English, is often of a
facetious nature, and attempts to provide a concise summary of the
grammatical "problem" the frame in question is to "solve." (Frame
titles for Task II and III are included in the compilation of lin-
guistic content found in the appendix of this Guide.)

10. Re-design of presentational format: In all past versions of the Program, student workbook materials have been printed on the same page of the workbook as the instructions (pre-frames) provided for the proper workthrough of that frame. In the present version, instructions (pre-frames) have been collected and published separately in the "Student Manual." Workbook pages are also published separately. While workbook pages are by nature self-destroying, requiring a new and individual workbook for each student, Student Manuals may be used and re-used by any number of students until physical deterioration makes this impossible.

b) Procedures

The procedures employed in the revised, "new" version of Task II are similar in most respects to those employed in the older versions. These may be summarized as follows:

1. Each frame is preceded by a textual or audio set of instructions according to which the student must workthrough the frame. These are termed "pre-frames" or "recorded pre-frames."

2. Each frame consists of a number of stimuli to which a student is expected to make either a vocal, gestural or written response (or a combination of such).

3. A confirmation is provided for at least 90% of all student responses on each frame.

4. A majority of the stimuli included in any one frame require the same response-class, or category, from the student. For example: if the "response-class" of a given frame is the provision by the student of a subject pronoun, then few stimuli will be provided that do not permit such a response to be given. (In this case, any verb form-- previously trained, or presently under training--can be used.) To the extent that the response-class is restricted, so is that of the stimulus forms. It is important to note that this principle requires that each frame be constructed not on a stimulus-response basis, but on a response-stimulus basis. The workthrough of each frame, however, is, of course, on a stimulus-response progression.

5. Aural discrimination provides, in a majority of cases, the basis for any given student response.

In addition to these now traditional and basic procedures, the following new procedures have been employed in the present revision:

1. Use of simultaneous translation frames: English to Spanish and Spanish to English.

2. Reading frames, similar to those described in Task I.

3. Writing frames, similar to those described in Task I.

4. Review frames: Frames whose sole function is to review stimulus-response chains previously habituated in the student have

been included for the first time in Task II. These frames number thirty-four and are so marked. Students need work through them only for the time necessary to determine that such a review is not necessary (i.e. that behavior under review remains in adequate strength.)

c) Content and Objectives

The linguistic content of Task II is outlined in full in Teacher Guide, Appendix A, to which the reader is here referred. The objectives of the present Task are as follows:

1. Pronunciation: To maintain previously trained pronunciation habits in student.

2. Vocabulary: To maintain approximately 230 paired-associate learnings in active vocal recall in each student, and to pair-associate approximately 130 additional items. In both cases the items pair-associated are a visual image (drawing) and an appropriate vocal response. Of these three hundred and sixty pair-associates, lexical equivalents in English are maintained in student recall for approximately two hundred.

3. Morphology: To provide ability for automatic manipulation of the following forms:

    i.   articles: definite and indefinite, except lo.
    ii. prepositions: a, con, de, hasta, en.
   iii. gender: masculine and feminine markers in final position
    iv. adjectives: post positioned to noun
    v. subject pronouns (actors): all
    vi. object pronouns (acted upons): all
   vii. verbs: persons: all
              tense: present of custom, indicative (regular, irregulars taught)

                    "now" present (ahora), indicative (regular, irregulars taught)

                    preterite, indicative
                    present-future (present plus future adverb): hablo mañana.
                    "pure" future (r plus stressed vowel): comeré

   viii. conjunctions: pero, sino, y
    ix. plurality: nouns, verbs

4. Syntax: To permit student to recognize and to respond approximately to (under the constraints of the Program) the following types of utterances:

    i. Questions: with intonational marker
                  with "interrogative word" marker:
                  ¿qué?
                  ¿cómo?
                  ¿cuándo?
                  ¿dónde?
                  ¿quién?
                  ¿Quiénes?
                  ¿cuánto?

ii. Statements: with intonational marker
with emphasis marker

Task III

Task III of the present ALLP-IV version, as explained in the preceding section, consists primarily of the second numerical half of the ALLP-II version frames originally included in Task III. Frames are numbered consecutively from MIII 401 to MIII 817, showing a total of 417 frames.

a) Revisions

All revisions described in the preceding section for Task II have been wrought on the frames on the present Task III. Two major differences exist between the two tasks which should be noted here:

1. Extensive use of "review frames." There are approximately 184 frames included within Task III whose primary function is to review material previously taught. As with the "review frames" of Task II, the student is advised that a complete workthrough of these "review frames" is not necessary if he finds that the review will depend heavily on the accuracy and quality of his previous workthrough.

2. Omission of writing frames. No frames have been included in this Task whose primary function is to teach, or maintain in strength, writing skills previously trained. It is difficult to determine, at this point, whether such a decision was a wise one or not. It was found from examining experimental student workthrough of this Task that all such students did, indeed, engage in a great amount of writing as they worked through the Task and did not appear to benefit from the frames earlier included which required their attention in developing this skill. Among the reasons that may be given for student ad-hoc writing behavior during Task III are the following:

   i. "wanted to remember a certain phrase or word" (and would therefore transcribe the complete utterance as audited on the recorded frame).

   ii. "easier to answer questions if question was seen as well as heard" (resulting often in the transcription of an entire frame).

   iii. "to remember a question they wanted to ask a monitor" (thereby transcribing an utterance heard, or composing the written version of an utterance in which they are interested).

This ad-hoc writing behavior was not discouraged by supervisors of experimental students, although it was normally pointed out on each occasion that considerable time had been invested in such writing tasks which could not appropriately count as Program workthrough time. Such admonition did not, however, reduce student time spend on the endevour. With this experience it was decided to omit all writing frames from Task III and rely on students' apparent desire to "continue to write" to provide the necessary maintenance of the skill. If, with further use of the Program, it is found that the writing skills are not maintained, it will be necessary to reintroduce "writing frames" into Task III.

- 11 -

b) Procedures

All procedures introduced in and described for Task II, in the section above, have been employed in Task III without exception. In addition, several new procedures are included and are as follows:

1. Incremental use of Spanish language in recorded pre-frames. In Task II of the present version, the recorded pre-frame is most frequently used to demonstrate the stimulus-response pattern being taught in the corresponding frame, and to provide the Spanish lexical items to be pair-associated with the visuals presented in the workbooks. Relatively few of the "instructions" and a proportionally samll amount of the "picture frame" recorded pre-frame texts attempt to use Spanish as the medium for presenting information to the students or in establishing communication with him. In Task III, however, and progressively as the Task continues, Spanish is employed as medium of communication between model voice and student. To permit this procedure it has been necessary to "mix" Spanish and English, often in the same spoken sentence-- a technique generally criticized as detrimental in traditional methods of language teaching. It is quite possible that those reasons usually given to discourage the collation of languages within a single expression are also valid in the present Task; however, there is no experimental evidence that such is the case. On the other hand, and within the content of the present program, four advantages of the use of this procedure do seem partially documented.

  i. Permits iterated use of past "vocabulary" on at least an exposure level.
  ii. Reduces "need" on student's part to "translate."
  iii. Accustoms the student to "switch" language as he must often do during "conventional language instruction."
  iv. Accustoms student to "hearing Spanish" for reasons other than instruction giving or modeling.

2. Teaching of cognate recognition. New procedures have been devised to teach students to recognize English-Spanish cognates. These have been included in Task III for the first time. Spanish-English cognates are normally avoided in methods or oral instruction since phonological interferences are most likely to occur. Never-the-less, in the frame of Task III approximately eighty-five cognates are presented to the Program student and means for recognizing them and identifying them are provided him. If, under further experimentation, it is found that these frames do not create phonological problems, it is recommended that teachers or supervisors of the Program expand or add additional frames of this type, following the models used here.

c) Content and objectives

Like that of Task II, the linguistic content of Task III is outlined in full in Appendix A to which the reader is here referred. The objectives of the present task are as follows:

1. Pronunciation: To maintain previously trained pronunciation habits in student.

2. Vocabulary: to maintain the approximately 360 previously presented paired-associate learnings in active vocal recall in each student, and to pair-associate approximately 230 additional items. Of these, approximately four hundred and eighty pair associates, lexical equivalents in English are maintained in student recall. Forty-two "idiomatic expressions" are also pair-associated with visuals.

3. Morphology: To maintain automatic manipulation of morphological items presented in Task II and the following:

    i.   articles: lo
    ii. prepositions: entre, para, por, abajo, de
    iii. gender: "irregulars"
    iv. adjectives: eso, a; er, era suffixes
                       diminutives: ito, a; illo, a
    v.   verbs: tenses: "future of obligation" (he de comer)
                              "going to" future: ir plus a plus infinitive, indicative
                        imperfect, indicative
                        present, subjunctive
                        imperfect, subjunctive
                        present perfect, indicative and subjunctive

4. Syntax: To maintain student recognition of and response to items previously taught in Task II.

Task IV

Task IV of the present ALLP-IV version consists of a highly revised and modified set of materials taken, primarily, from Sets I and II of the original ALLP-II version of Task IV. The materials in this task are termed "Lessons" rather than frames. There are a total of 101 "Lessons", composed of audio lessons and "workbook lessons." The audio lessons contain the pedagogical equivalent of 250 audio frames (i.e., 780 minutes of tape duration, each three minute section being devoted to a single "response-class.")

a) Revisions

1. Addition of "reading and writing" materials within student workbook. Each "audio lesson" is preceded by a "workbook lesson" requiring the student to "study" (i.e. read) the introductory grammatical concepts presented: to "learn" (i.e. memorize) a short vocabulary of between five and fifteen items, and to compose in Spanish to complete partial sentences supplied or to translate from English to Spanish. Spanish to English translations are also required frequently. All written work required of student is confirmed by a "key" in the workbook page.

2. Provision of "prompt sheets." Each audio lesson which as not been completely "prepared for" by the preceding workbook lesson contains, in the Student Manual, a "prompt sheet" on which the student will find all information he will need (in Spanish or English) to aide him in following the instructions for the audio frame on which he is working.

3. Presentation format. As with Tasks II and III, Task IV materials have been divided between a Student Workbook, needed by each student, and a Student Manual, necessary in the same quanity as the number of individual machines provided for simultaneous use with the Program. No voicing script is provided for this Task since it is essentially duplicated in the pages of the student workbook and student manuel.

b) **Procedures**

All procedures employed are either those traditional to convention-al "textbook" presentation or similar in all respects to procedures previously employed in Task IV of the ALLP-II Spanish Program.

c) **Content and Objectives**

Unfortunately, the content of Task IV is quite similar to any conventional classroom text designed as a "review Grammar" currently in the market. Each "workbook Lesson" is divided into several sections. (corresponding to an audio frame) which is labeled as to its grammatical content. The "Audio Lessons", also frequently divided, are similarly labeled. It is recommended that the teacher familiarize himself with the content of these lessons,much as he would those of the conventional text, by reading the descriptive labels of each section in the workbook.

The objectives of Task IV are similarly comparable to those of the conventional "review grammar." They are:

1. To maintain oral-aural skills
2. To provide a grammar review (in traditional grammatical terminology)
3. To provide practice in the writing of Spanish
4. To increase the active vocabulary of the student

The traditional aspect of both Content and Objectives of Task IV are purposeful. Students emerging from past versions of the ALLP Program have met with considerable difficulty in meeting the requirements and conforming to the requisites of traditional classroom practices. It is hoped that by providing this Task IV transition from a purely audio-lingual approach to the habitualization of linguistic behaviors to that of the classroom, these students will in the future find less difficulty in continuing their Spanish studies.

III RESULTS

The results of the contracted revisions are, of course, the revisions themselves.

These may be summarized as follows:
1. Reduction in length: The ALLP-II version of the Program contained 2021 audio frames recorded on a total tape length of approximately two hundred and forty thousand feet (200 seven inch teels) at 3 3/4 ips, and requiring an average workthrough time of approximately 240 hours, with an average of three trials (repetitions) of each frame. It could be completed by only the most assiduous and "adaptive" student within the normal length of an academic college year. The present version shows a significant reduction in total Program length

and potential workthrough time. It is comprised of 1651 audio frames
recorded on a total tape length of approximately one hundred and forty
thousand feet (144 seven inch reels, twenty containing less than 1200
feet) at 3 3/4 ips, and requiring an average workthrough time of
approximately 160 hours, with an average of two trials of each frame.

2. ·Inclusion of additional material: Unlike past ALLP versions,
the present Program includes instruction in reading and writing Spanish
and some grammatical information.

3. Early inclusion of "meaning". Unlike earlier versions, the
present Program introduces lexical meaning early in its first task
and maintains a basic vocabulary of some 600 items throughout its
entire length.

4. Use of graphics. The present Program employs a large number
of "picture frames" in which partial or total stimulus for student
response is a drawn, representational image in the student's workbook.

5. Simultaneous translation. Unlike earlier versions, the
present Program provides instruction in "simultaneous translation"
from NL to TL and TL to NL.

6. Test Frames. The present Program contains a total of
forty-six test frames inserted within the Program at approximate
intervals of forty frame sequences. Each test frame has between two
to four versions (trials). It is presumed that a learner failing to
score 90% correct on any test frame will return to the frame following
the previous test frame and re-work the material up to and including
the test frame originally failed, taking the second version on arrival
at it, etc.

7. Fusion of original Tasks I and II. In the present version
of the Program, material originally pertaining to Task I of the ALLP-II
version has been re-written and relocated into original material per-
taining to Task II of ALLP-II version, this too having undergone revision,
rewriting and revoicing. Task I of earlier versions may therefore be used,
or be omitted, as desired, when the present version is employed.

8. Multiple voice recordings. Unlike earlier versions, male
and female voices are used throughout the four tasks. In addition to
the principal voicer, other auxiliary voicers are used to provide the
student with additional models.

9. New presentational format for Tasks II-IV. While Task I of the
present Program maintains the Workbook-Manual format employed in the
past for the Program, this has been changed for Tasks II through IV.
In the last three tasks of the Program, all printed material providing
"instructions" to the student as to how he must respond to each audio
frame is included in a Student Manual for that task. All printed
material provided to aide the student in responding to each audio frame
(and frames teaching reading and writing) is included in a separate
Student Workbook. The student manual may be reused a number of times
and need be provided in the same quanity as the number of machines
available for student use. The student workbook is a self-destroying
text, one being needed by each student working through the program.

10. **Electro-mechanical requirements.** Unlike previous versions of the Program, the present version can be used successfully only in conjunction with a variable delay, immediate playback device used in conjunction with a cartridged tape simultaneous record-playback deck.

The pedagogical results of the revisions made on the ALLP-II Program will not, of course, be known until the revised program is used again as the sole instructional medium for first year Spanish students. It may be noticed here, however, that the experimental students employed during the project of revision appeared to experience less difficulty, in general in working through portions of the revised program than earlier students and the scores achieved on the MLA-ETS Cooperative Spanish Proficiency Test (Level MA) were generally higher than those achieved by students who had previously used the un-revised program.

IV DISCUSSION

A discussion of the pedagogical effectiveness of the revisions contracted for and made on the original Morton-Michigan Spanish ALLP-II Program must necessarily await the analysis and study of results when the revised program is used for purely instructional purposes. It may be said, however, that it is the opinion of the Project Director and his staff that the ALLP-II Program, as presently revised is superior in many ways to the original program.

V CONCLUSION

The present Audio-Lingual Programmed Self-Instructional Course in Spoken American Spanish, as revised under Contract No. OE-6014-023, represents the eighth formal revision of the germinal materials first developed by F.R. Morton at Harvard University between 1951 and 1954 for an experimental, intensive course in Spoken Spanish then designated as Spanish BAB. The original Harvard materials were first revised and enlarged at the University of Michigan under an USOE NDEA Title VI Language Research Contract between 1960 and 1964 as the work of Project ALLP (Audio-Lingual Language Programming) at which time four additional language programs in French, Russian, Chinese (Mandarin) and Thai were designed and partially constructed. Between 1964 and 1967, the Spanish and French Programs, under subsequent Title VI grants, were afforded large scale field testing and revision at Lindenwood College, St. Charles, Missouri, under the Project Directorship of Dr. Morton. Concurrently, a commercial version of the Program, with major revisions in format and textual style was carried out by English Language Services, Inc. of Washington, D.C.

The eight major revisions of the program have the following chronology and designation:

1954:	Original Morton-Harvard Version
1960-1962:	Morton-Michigan ALLP-I (USOE) "Program Prime" (consisting of two revisions of the Morton-Harvard Version, the second revision duplicated in a limited number of copies)
1962-1964:	Morton-Michigan ALLP-II (USOE), (consisting of two revisions of ALLP-I, the second revision used experimentally by the Arlington, Virginia, and Inglewood, California, School Systems
1964-1965:	ELS (English Language Services) Version (consisting of a revision of ALLP-II of 1964), commercially available from ELS
1964-1965:	ALLP-III (USOE), (consisting of an adaptation of ALLP-II for trial use as the sole instructional medium for first-year Spanish students in a liberal arts college)
1966-1967:	ALLP-IV (USOE), (final revision of ALLP-III).

A total experimental-student population of 531 has worked partially or completely through the eight revisions under supervisory control of the several ALLP Project personnel. In addition, the ELS version has received varied and broad scale use. The Program has also received controlled experimental use outside the project itself by the Arlington, Virginia, and the Inglewood, California, School Systems. Published reports on these independent projects may be consulted.

The present materials, submitted to the U.S. Office of Education as the subject data required under the terms of the contract, has not as yet received final field testing. However, of the 1651 frames it contains, all but fifty-nine have been worked through in their present forms by one or more experimental students. All errors, of either a technical or linguistic nature, discovered by experimental workthrough have been corrected. It is expected that these materials will receive their first large scale field testing under the supervision of their author during the 1967-68 academic year at the College of Artesia, Artesia, New Mexico

The revisions made on the original program and which have resulted in the present one may be listed as follows:

1. Reduction in program length
2. Early inclusion of "meaning"
3. Inclusion of additional material to teach reading and writing Spanish
4. Expanded use of graphics
5. Use of simultaneous translation: English-Spanish; Spanish-English
6. Inclusions of Test Frames throughout four tasks of program
7. Fusion of original Tasks I and II
8. Expanded use of multiple voice recordings.
9. New presentational format for Tasks II through IV.
10. Integration of variable delay immediate play-back equipment ("Responser") into electro-mechanical presentational requirements.

End of Final Report