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A two-phase survey was conducted by the Center for Applied Linguistics Clearinghouse for Self-Instructional Language Materials to (1) identify modern language departments of U.S. colleges and universities using programed materials, and (2) describe the extent of the departments' use and development of such materials. A brief description of the Phase 1 questionnaire is followed by discussions of responses, programs used, characteristics of the institutions, supplementary programs, and other surveys. Results of the Phase 2 questionnaire (a copy is included in an appendix) are presented in terms of program administration, student and instructor comments, and instructor plans and attitudes. Bibliographical data are included in the footnotes. (DS)

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CLEARINGHOUSE REPORT:

Results of the Survey of the Use of Programmed Foreign Language Instruction
in American Universities and Colleges
by Janet D. Griffith

July 1965

Introduction

In July 1964, the Center for Applied Linguistics established the Clearinghouse for Self-Instructional Language Materials (CHSILM) to provide individuals and organizations concerned with the development, testing and use of language programs an information center on programmed instruction in foreign languages (including English as a foreign or second language). One of the main efforts of the Clearinghouse has been to collect information on the present state of programmed foreign language instruction, including program availability and use. One of the activities the Clearinghouse has undertaken to obtain this information is a survey of the use of programmed foreign language materials in a number of American colleges and universities.

While a few surveys of program use have come to the attention of the Clearinghouse none of these dealt directly with the use of programmed foreign language instruction at the college or university level. The Center for Programed Instruction has surveyed the use of programs in American schools¹ but this study dealt only peripherally with programmed foreign language materials and did not study the use of programs with a college or adult population. Other surveys of available foreign language programs have been primarily concerned with the characteristics of the programs themselves rather than where, how, and by whom they were being used.² The Clearinghouse survey has concentrated on the use of programmed foreign language materials by American college language departments, government agencies, and institutions teaching English as a foreign language.

The survey covers the use of foreign language programs between September 1963 and September 1965,³ and is being conducted in two phases -- (1) a general mailing to determine the extent of program use and to identify language departments that are using or developing programmed materials and (2) a survey of the departments identified as program users in Phase I to collect detailed information on their program use and development activities.

I. Phase I

A. Procedure

A short questionnaire and explanatory letter were sent to the chairmen of modern language departments and to other institutions likely to be using foreign language programs. The first questionnaire was sent to a total of 617 individuals, primarily chairmen of college and university modern language departments, at 425 institutions. Approximately 560 of these were sent in September, 1964. Subsequently the other 50-60 questionnaires were sent to individuals identified as program users by earlier respondents. A follow-up reminder was sent to non-respondents.

The institutions surveyed were selected from several lists of colleges and universities. The first of these was Astin's 'Rankings of 335 institutions on five factor scores'.⁴ Additional colleges were selected from the Modern Language Association of America list of institutions teaching neglected languages,⁵ colleges listed in Lovejoy's College Guide⁶ as allowing students to major in languages, and the Center for Applied Linguistics' publication University Resources in the United States for Linguistics and the Teaching of English as a Foreign Language.⁷ The institutions chosen from all sources were selected as being either major colleges and universities or smaller ones active in foreign language instruction. In addition, a few of the major Canadian universities and the United States government agencies active in foreign language teaching were surveyed.

The questionnaire asked whether the individual or department was using or had used programmed materials (as defined in an accompanying letter) in teaching foreign languages, including English as a foreign language. If they were using foreign language programs, they were asked to list the languages taught, the names of the instructors administering the programs, and the titles and authors or publishers of the programs used. This information was requested both for generally available programs and for programs that had been developed locally for use in the department's foreign language curriculum. The names of other persons or institutions known by the respondents to be using foreign language programs were also requested.

B. Results

The response to this questionnaire has provided an indication of the extent of program use in American college language departments and a partial inventory of programs presently in use. In addition, several programs and program development projects undertaken by different institutions and instructors have been located. Some of these are engaged in developing programmed materials in neglected languages or in preparing programs that aim at higher levels of proficiency than do most of those presently available.

Of the 617 individuals surveyed, 406 (66%) have returned the questionnaire. Only 404 of the 406 respondents will be considered in the following discussion since two of the respondents represent government agencies rather than colleges.⁸

Of the 404 college and university respondents, 340 (84%) are not using and have not used programmed instruction in foreign languages in their department. These non-users include both those who responded "no" to the questions about program use and a small number who responded "yes", but who are using materials that do not meet the usual definition of programmed materials. Materials reported on the questionnaire which did not seem to be programmed were checked against the Center for Applied Linguistics library collection of materials and information on foreign language instruction.⁹ If a copy of the materials or information showing they were not programmed could be found, the questionnaire was assigned to the non-user group,¹⁰ while respondents using materials on which it has been impossible to locate information are assigned to an unknown group in the program user category rather than being included with users of known programs.

Of the respondents, 64 (16%) at 62 institutions reported that programmed foreign language materials were used in their department. The data on period of program use and type of materials used are summarized in the following table:

Number of administrations of
programmed materials by year
and type of materials

	<u>1963-64 only</u>	<u>1964-65 only</u>	<u>1963-64 & 1964-65 both</u>	<u>Total</u>
Known programs:				
Available	10	9	40 ^{**}	59
Restricted-availability	1	10	8 [*]	19
Partially programmed materials:	1	1	10	12
Unknown materials:	1	10	34	45

* One restricted-availability program, used at two institutions in both 1963-1964 and 1964-65 is three semesters long. Each use of the program while extending over a two-year period, has therefore been tabulated as one administration.

** These figures are for the total number of administrations, i.e., each response indicating that a program was administered in two consecutive years is tabulated as two administrations of the program (with the exception noted above).

1. Unknown and partially programmed materials

'Unknown' programs are those on which the Clearinghouse has been unable to locate definite information. When further information can be located, either from the second phase of the survey or through other means, it should be possible to assign these 'unknown' materials to appropriate categories, probably either 'partially-programmed' or 'known programs-availability restricted'. These materials have been developed primarily by instructors at a single institutions for use in the institution's foreign language curriculum.

Partially-programmed materials differ from programs in one of two general ways: some require extensive teacher intervention for their administration (in this they differ from programmed supplementary materials, which are wholly self-instructional but are used as adjuncts to classroom courses); others, though administratively self-instructional, lack one or more of the other characteristics generally associated with programmed materials. These materials are similar to the unknown materials in having usually been developed by individual instructors and departments for local use.

2. Programs used

Respondents have listed a total of 25 known programs used in the period September 1963-September 1965. Fifteen of these are commercially available,¹¹ while the availability of the ten other programs has been restricted.¹²

The distribution of programs used, by language and program availability, is shown in the following table:

Number of programs in use: by language

	<u>Available programs</u>	<u>Restricted-availability programs</u>	<u>Total</u>
Chinese	--	2	2
English	4 ^a	--	4
French	3	3	6
German	2	--	2
Greek (modern)	1	--	1
Russian	2	2	4
Spanish	2	3	5
Thai	1	--	1
	<u>15</u>	<u>10</u>	<u>25</u>

a. Three of these programs are in English grammar, designed for American high school students and being used with foreign students.

Some patterns of differences in the use of the available and restricted programs are immediately evident. These are summarized in the following table:

The use of available and restricted-availability foreign language programs

	<u>Available programs</u>	<u>Restricted-availability programs</u>	<u>Total</u>
No. of programs	15	10	25
No. of institutions using program	27 ^a	10 ^a	35 ^a
No. of instructors	27 ^b	13 ^b	39 ^b
No. of administrations of programs	59	19	78
No. of administrations conducted by program author or a colleague	11	18	29

a. Includes two institutions using both available and restricted programs
 b. Includes two instructors using both available and restricted programs.

Number of administrations: The mean number of administrations for available programs is 3.9; the median number of administrations is 3.¹³ For restricted programs, the mean number of administrations is 1.9, while the median is 2.

Users: As would be expected, all but one of the administrations of the restricted materials were conducted by the authors of the programs or one of their colleagues. However, it should also be noted that nearly one-fifth of the administrations of the commercially available programs were also conducted by the program authors or a colleague. This suggests that even after a program becomes commercially available the author may continue to be its main user.

Periods of use: Several institutions used programs experimentally in 1963-64 and not in the following year. In several cases the failure to use the program again seems to have been the result of unavailability of funds, though in others it appears to reflect dissatisfaction with the programmed materials used.¹⁴

The first questionnaire did not ask whether the institutions plan to continue using programs in 1965-66 or following years, though this information is being gathered in the second phase of the survey.

3. Characteristics of institutions

The results of this survey do not provide sufficient data for a detailed analysis of the characteristics of institutions in which programs have been used. Even if such an analysis could be made it might well be misleading, since on individual instructor's use of programmed materials may reflect his own skills and interests rather than the characteristics of the institution in which he works. This is not to say that program use is necessarily entirely unaffected by the instructional setting, since an institution committed to experimentation with new educational techniques may select and be selected by instructors who share such interests, and may then provide them with time, funds and facilities for conducting research. While this survey has not examined the source from which the impetus to use programs came, it is reasonable to assume that in some instances program use is determined or encouraged by institutional policy, while in others it is primarily a matter of the interest of instructors or departments.¹⁵

While institutional characteristics are unlikely to be the sole determiners of an instructor's or department's use of programmed instruction, the possibility of some relationship existing between institutional characteristics and program use cannot be entirely disregarded. One institutional characteristic which may relate to program use and which can be objectively measured is size. The table below shows the numbers of universities and colleges of different sizes found to be using programmed or partially programmed materials.¹⁶

Number of institutions of different sizes using materials

	<u>Undergraduate enrollment</u>				<u>Size unknown</u>	<u>Total</u>
	<u>Under 1,000</u>	<u>1,000-3,000</u>	<u>3,000-10,000</u>	<u>Over 10,000</u>		
Known programs Available	4 ^a	10 ^{b,c}	6 ^c	6 ^f	1	27
Restricted-availability	3	1	2	4 ^f	-	10
Partially programmed materials	2	3 ^{d,b}	2	-	-	7
Unknown materials	<u>2</u>	<u>9^{d,c}</u>	<u>6^c</u>	<u>6</u>	<u>1</u>	<u>24</u>
	10	20	15	15	2	62*

a-f: Designate institutions using materials in two different categories

*: Total number of institutions using materials, corrected for institutions counted in two categories.

The size groupings of colleges approximate the parameters of the population of American colleges and universities. A student body of 1000 is approximately the mean size, while 3000 is close to one standard deviation above the mean, and 10,000 is about two standard deviations above.¹⁷

The patterns of use of commercially available programs, partially programmed materials, and unknown materials are generally similar, being concentrated in the group of colleges falling roughly between the mean college size and one standard deviation above it. These distributions may be similar to the size distribution of the original sample surveyed. The use of restricted-availability programs appear to be very differently distributed, however, being concentrated in a few small institutions and a few very large ones.¹⁸ Additionally, at least four of the ten restricted-availability programs in use were developed under government contract.

It is likely that the sample of colleges and universities surveyed does not represent the larger population of American colleges and universities, over-representing the major colleges and universities while sampling only a few of the institutions at the other end of the distribution. This bias is to some extent intentional and is inherent in the original selection of institutions to be surveyed, since this was primarily based on a list of 335 major colleges and universities.¹⁹

Institutional size, even if correlated with frequency of program use, is still not necessarily the actual determining factor. For instance, the instructor-student ratio may be much more important than the absolute numbers of students. And instructor-student ratio may, in turn, be related to the wealth of the institution. Thus relatively poor institutions with few instructors may have greater need for self-instructional materials than do more affluent ones, but wealthier colleges can generally provide more funds and instructor research time for developing

new materials. In addition, these wealthy colleges and universities may have a commitment to research which gives them relatively easy access to government contracts or other research funds. Thus it may be the case that smaller colleges are more likely to utilize available programmed materials than are larger or wealthier institutions, while the latter may be more active in program development and research.

Since graduate students are an important source of elementary language instruction in universities, their availability makes it possible for universities to provide instruction for large numbers of elementary language students without placing a heavy teaching burden on the regular teaching faculty. Small institutions, particularly those without graduate schools, do not have such easy access to large numbers of instructors. For this reason, they may be more likely to consider using programmed instruction as a means of reducing the teaching load on their faculty.

In general, it seems that, though the nature and degree of an institution's involvement in language programming may be related to the size of the institution, so many other confounding institutional variables may also obtain that the nature of this one relationship is obscured. Certainly the data from this survey are not sufficient to permit more than speculative discussion on this point.

C. Discussion

Several further reasons can be suggested for the low frequency of program use found in the Clearinghouse survey. Many colleges and universities already have an extensive foreign language curriculum, and thus may feel little immediate need to use programs, especially since most of the programs presently available provide less than one semester of college language instruction, and are almost exclusively at the introductory level. A number of instructors who have used programs have mentioned the difficulties caused by trying to fit students who have been instructed by the programs into the regular curriculum, since the content of a program is rarely identical with that covered in the same period in a different elementary course. Thus, unless major revision of a department's language course sequencing is undertaken, it may be difficult to place students who have completed an introductory program in appropriate continuing classes. An administrative problem is also introduced if students complete the program at different times, as they generally do, and particularly if they finish well before the semester or quarter is over.

It might be expected that universities and colleges in general would be less likely to use programmed foreign language materials than would high schools, elementary schools, businesses or individuals, though the Center for Programed Instruction survey discussed below indicates little use of foreign language programs in the schools. A number of business corporations have already used programs in a number of areas, and have both the flexibility in time (it is in their interests to get students through a course and back to work as fast as possible) and the funds to use programs or have them developed for teaching a variety of skills. Some of the corporations with international branches have already used language programs.²⁰

While programmed foreign language instruction appears to be a possible solution to some of the problems of high school language instruction, its usefulness may be restricted by several factors. First, most FL programs require language laboratory

equipment, which is expensive to purchase and maintain. Second, foreign language programs themselves are relatively costly. In the Center for Programed Instruction survey of the use of programs in schools, the median cost of programs used was between \$10.00 and \$15.00, with only 9% of respondents saying they had paid over \$15.00 for the program.²¹ This is much less than most of the foreign language programs with tapes cost. The expense of buying FL programs may be so great relative to programs in other subjects or to FL texts as to make their use impracticable for most schools. Additionally, most programs require that an instructor be available to the students and that he be familiar with the program being used. This might prevent a school from trying to use programs to introduce instruction in a language it had not previously offered.

Supplementary programs

Several of the programs presently available are designed for use as programmed supplements to regular foreign language instruction. Programs of this kind may be more generally useful than programs attempting to provide all instruction in the language for an entire course. Relatively short programs teaching specific, limited skills such as pronunciation, particular types of usage, vocabulary building or the writing of non-Roman orthographies could be effectively used in a variety of situations, and can be developed in less time and at less expense than total programs. It is worth noting in this connection that approximately one-fourth of the 24 respondents who are developing or using materials presently unknown to the Clearinghouse state that the materials teach restricted skills, such as vocabulary, pronunciation or orthography.

D. Other Surveys of Program Use

Considering the current apparent popularity of programmed instruction as an educational tool, one may ask whether the limited involvement of colleges and universities in the area of foreign language programming indicated by this survey reflects the present state of implementation of this kind of program. While there are no other surveys available that are directly comparable with this one, it is possible to make one or two comparisons with the surveys that are available.

As has been mentioned above, the Center for Programed Instruction surveyed the use of programmed instruction in American public elementary and high schools in the year 1961-62. In this survey questionnaires were sent to approximately 15,000 school superintendents and about 1900 responses were received. The number of respondents was thus approximately 10-15% of the total number receiving the questionnaire.

Only 209 (11%) of the respondents reported that their school systems were using programmed instruction in any subject, and only 4% of the schools using programs reported using them in foreign languages. Though there are several inconsistencies in the reporting of the data, this means that approximately ten schools reported using programmed foreign language materials at some level. These figures can at least be roughly compared with those found in the Clearinghouse survey. In the Center for Programed Instruction survey, approximately one-half of one percent of the respondents reported using programmed foreign language materials in one academic year, (1961-62) while 16% of the respondents to the Clearinghouse survey reported using such materials in one or both of two successive years (1963-64, 1964-65). The Clearinghouse survey, however, was directed specifically to language

departments, while many of the high schools and particularly the elementary schools in the Center for Programed Instruction survey may have had no foreign language courses or instructors. Both surveys do suggest that program use is not widespread. Similarly, a recent paper by John E. Coulson of System Development Corporation, stated that, "A recent SDC survey indicated that only a handful of public schools are using programmed instruction on any large-scale, regularly scheduled basis to provide a substantial part of the classroom instruction."²²

In another study, however, it is reported that "About half of the colleges and universities in the United States have done some research in programmed instruction during the past four years."²³ However, the definitions of "programmed instruction" and "research" are not given and in any case it is not possible to determine the relationship between program use and research in the area of programming.

II. Phase II

The purpose of the second phase of the survey, begun in November 1964, has been to obtain detailed information on the ways different instructors have used individual programs and the results of these program administrations.²⁴

A. Procedure

This questionnaire has been sent to the instructors found, through the first phase of the survey, to be using programs known to the Clearinghouse or materials not known to the Clearinghouse but listed as programs by respondents to the first questionnaire. A cover letter, emphasizing the importance of information provided by program users in developing an understanding of program use and in providing valuable information to potential users of programs, accompanied the questionnaire.

The questionnaire requests information on prerequisites, student aptitude and previous experience with the language, and student achievement on standardized tests and in comparison with control groups. The instructor is also asked about the way in which the program was used -- whether it was used in a remedial course, intensive course, regular course, or as a supplement to other instruction. In addition, the instructor is asked about the time spent by the students in working with the program and in other course work.

The last sections of the questionnaire are designed to elicit student and instructor opinions about the program and its appropriateness for the use to which it was put. The questions in this section are based on a variety of the comments frequently made about programmed instruction. For instance, the instructor is asked whether the students reported finding some sections of the program particularly difficult or boring, whether they felt they learned more or spent less time than in a conventional foreign language course, and what other comments the students made on the program. The instructor is also asked to describe the characteristics of students who did particularly well or poorly on the program, to evaluate the appropriateness of the level and content of the program for his students, to suggest improvements in the program, and to report any plans he may have for using the same or other programmed materials in the future, including any plans he may have to write programs himself.

B. Results and Discussion

Copies of this questionnaire continue to be returned. However, 21 questionnaires describing the use of known programs have been returned, and some general comments can be made on the basis of these questionnaires.²⁵

1. Administration

About half of the respondents report that their use of the program was experimental, usually with the intention of determining the feasibility of using the program in the regular curriculum. However, almost no respondents provided information on such subjects as preliminary testing of students, use of control groups, and program completion time, which suggests that many of these "experiments" in program use were rather loosely controlled. While the program users may have been able to use their experience with the programs as a basis for making decisions on continued program use and program revision as well as other questions, the information they report is frequently difficult for others to use with confidence. While the impressionistic evidence and comments given are helpful, particularly if taken in conjunction with other information and comments on the same programs, relatively few of the respondents have provided the kind of experimental research data that can give strong evidence for or against the appropriateness of using individual programs in certain ways or that can lead to more general statements about the programs.

The respondents to the second questionnaire who have worked with known programs report having used them in a variety of ways. The programs were administered in the regular curriculum, for remedial work, and in adult or extension education courses. About half of the respondents report that the programs were not the sole source of instruction in the course but were used with other course work or materials. In some cases the same programs have been used for more than one purpose, e.g., both for remedial instruction and in a regular course.

Generally no specific prerequisites are reported, though lack of knowledge of the language was given as a requirement in several cases. The English programs used with foreign students required some prior knowledge of English, however.

Over three-fourths of the respondents providing usable information had fewer than 30 students taking the program, though one program user reported having administered a program to over 200 students. The small number of students usually involved is to be expected since many of the program administrations were experimental. The dropout rate was generally low, though more than one-third of the students dropped out of one or two programs.

As mentioned earlier, testing of students was often incomplete. Very few instructors reported giving any preliminary tests, though three used the Modern Language Aptitude Test. Almost all gave interim tests, mostly in order to provide the students and instructors with information on student progress. Final tests have usually been given or planned for the end of the course, but no users report having given retention tests. Interim and final tests were usually those provided with the program or developed locally. Very few instructors gave standardized tests such as the MLA Cooperative Tests.

Almost all programs were presented in a programmed book format, with the audio materials presented by a tape recorder. Several programs required some tape recorder modifications such as foot pedal controls or audio-active earphones. Only one instructor reported having used a teaching machine as a presentation device. It may be worth noting that the only general student comment he reported was "The machines didn't work smoothly."

2. Student and instructor comments

Several of the instructors' and students' comments are similar to generalizations frequently made about programmed instruction. For instance, the users of several programs reported that the students found that the program was more enjoyable than conventional foreign language instruction²⁶ and, in several cases, that it required less time than a regular course. How much of the pleasantness of using the program is a result of using a novel instructional technique cannot readily be determined. The response to the question of whether the students felt they learned more from the program than they would have in a conventional course was more divided than the comments about the pleasantness of the programs. This may reflect a realistic evaluation of what was learned, especially since most of the programs used were not particularly long or as broad in scope as the usual course syllabus.

The instructors' opinions about the kinds of students who do well or poorly in working with the programs show some consistencies, though since only about half responded on each item it is difficult to make general statements. The characteristics of students who did well or for whom the program was thought to be most effective cluster around high motivation and aptitude, with several comments suggesting that study habits may also be a factor in success or failure. Motivation was mentioned more frequently than aptitude. Most of the comments on student motivation do not distinguish among students who are generally interested and achieve well in academic situations, others who are specifically interested in the particular subject matter taught, and those who are highly motivated by certain features of the program itself. The comments on the effects of aptitude generally do not distinguish between specific language aptitude and general scholastic ability.

While aptitude and motivation are often closely related to one another and to academic success, it is frequently suggested that self-pacing, incremental progression and other characteristics of programmed instruction may greatly reduce the effect of aptitude - particularly low aptitude - on student performance. In this survey, several instructors stated that aptitude seemed to be unrelated to final performance, while only one mentioned low ability as a factor in poor performance. Several instructors mentioned that aptitude, while unrelated with final performance, was related to the time required to complete the program, as is often reported in the programming literature.²⁷

Poor attendance, which may reflect poor study habits as well as lack of interest, was given as one cause of failure. The effect of study habits and self-discipline may be especially important if no specific times are scheduled for studying the program, and instructors have reported that the dropout rate was particularly high under this condition.

3. Instructors' plans and attitudes

The final questions ask about the instructor's plans for using or developing programmed foreign language materials. Of these (about 15) program users who responded to the question asking whether they planned to use the same program again, only three reported that they did not. These three stated that the program content was inadequate or inappropriate for their use or, in one case, that administrative problems prevented him from reusing the program. All but two of those planning to reuse the same program planned to use it in the same way.

About half answered the question about any plans they might have to use other programs, and the majority of these said they did plan to use other programmed materials. However, most of them simply expressed a general interest in using other programs, such as advanced programs in the same language, if such programs were or became available; only two were specific in naming the programs they planned to use. Slightly more responded to the question asking whether they planned to develop programmed materials, and the majority of these said they did plan to do so. Among the three who did not intend to use the same program again, two planned to develop programs themselves. In general, such comments suggest that the respondents continue to be interested in programmed instruction even though some were dissatisfied with the specific programs they used.

Footnotes

1 The use of programmed instruction in U.S. schools: Report of a survey of the use of programmed instructional materials in the public schools of the United States during the year 1961-62. Washington, D.C.: U.S. Government Printing Office, 1963.

2 See, for instance, Harlan Lane. Programmed learning of a second language. IRAL, 1964, 2, 249-301.

3 One or two respondents have given information on their use of programs in 1962 as well. In the discussion, these are grouped with the 1963-1964 program administrations.

4 Alexander W. Astin. ADI Document No. 7262. 1964.

5 Critically needed languages in four-year colleges and universities, 1958-1960. Mimeographed report, dated June 1961.

6 New York: Simon and Schuster, 1961.

7 Third revised edition, November 1963.

8 It should be remembered that the 211 non-respondents may differ from the respondents in important ways. For instance, the respondents probably include a higher proportion of program users, since those who are active in foreign language programming and program use are more likely to respond to a survey of this kind.

9 These non-programmed materials include regular language laboratory tapes, volumes in the Holt Spoken Language Series, the Harcourt, Brace A-LM courses, and some of the University of Michigan materials for teaching English as a second language. All of these share important characteristics with programmed materials, but are not fully programmed. For instance, many of them include taped materials which are used in the language laboratory without an instructor present and which provide confirmation of the student's response, but lack the incremental sequencing characteristics of programmed instruction and are usually only drill supplements to regular classroom work.

10 If no information could be found on the materials or if there were other reasons for doubt, the respondent was tentatively regarded as a program user and received a copy of the second questionnaire, requesting detailed information on program administration. Through their response to the second questionnaire or through other information received by the Clearinghouse, several of these respondents have been found to be using non-programmed materials. In the tabulations discussed here, they have been treated as non-users.

11 Three of these are English grammar programs designed for use with American high school students, which are being used for teaching English as a second language.

12 Restricted-availability programs are ones that are known to the Clearinghouse but are not published or otherwise available for general use. Most of these are presently in the developmental stage and, after further field-testing, may become more widely available.

13 Of these programs, three Encyclopaedia Britannica programs were most frequently used, having been administered a total of 26 times.

14 The only restricted-availability program reported used in 1963-1964 but not 1964-1965 is presently being revised by its author and will be used again when the revisions have been completed.

15 Various colleges and association of colleges have followed policies of encouraging program research and development. Among these are Earlham and Hamilton colleges, groups such as the Associated Colleges of the Midwest and the Great Lakes Colleges Association, and, recently, Florida Atlantic University, which was established in 1964 and has been active in the development of programmed materials in a variety of subjects.

16 Undergraduate enrollment was used as the measure of institutional size.

17 These rough figures are taken from Alexander W. Astin. Who goes where to college? Chicago: Science Research Associates, 1965.

18 However, the concentration of known, restricted-availability programs in these institutions may be an artifact of the unavailability of information on other program development. That is, materials unknown to the Clearinghouse may also be programmed but may simply be less widely publicized than the known ones. If 'unknown' materials and known, restricted-availability programs are combined, then the apparent concentration of program development activities in colleges and universities of certain sizes disappears.

19 See page 2-3 for discussion of sample selection.

20 A Spanish program used by Mobil Oil Company is described in C.C. Harris. An experience in self-teaching. In Programming of audio-lingual language skills for self-instructional presentation. University of Michigan, Ann Arbor: Publications of the Language Laboratory, Series Preprints and Reprints: Volume VI. 1961.

21 Op. cit., p. 69.

22 Five major obstacles to the growth of programmed instruction in education. Santa Monica: System Development Corporation, SP-1944, 1965, p. 4.

23 Rex Reynolds. Research in P.I. in colleges and universities: A survey. Paper presented at the NSPI convention, May 7, 1965.

24 This questionnaire is attached as an appendix.

25 These include questionnaires returned through June 15, 1965.

26 'Conventional' is not defined since this section of the questionnaire is designed to elicit general comments and attitudes rather than precise methodological comparisons.

27 Most of the comments on the effects of student aptitude on performance are based on the instructors' own evaluations rather than the results of preliminary aptitude testing.

APPENDIX: Phase II Questionnaire

Please complete one copy
of the questionnaire
for each program administration.

Name of program: _____
Author or publisher: _____
Date and edition or revision of program used: _____
Dates of program administration. From: _____ To: _____
Location: _____
Support or sponsorship (e.g., Office of Education grant): _____
Supervisor or instructor: _____
Department: _____

If there is a detailed report of your use of these programmed materials available (e.g., project report to the Office of Education), please fill in only the information at the top of this page, and return the questionnaire to us with a copy of the report so that we may complete the questionnaire at the Clearinghouse.

I. USE OF PROGRAMMED FOREIGN LANGUAGE MATERIALS

(Please check appropriate boxes)

- As a regular course offering
Number of years program has regularly been offered as a course: _____
- Special or limited use
 - Remedial course
 - Intensive course
 - Supplement or adjunct to classroom instruction
 - Used regularly throughout course
 - Used only for part of course (e.g., discrimination training at beginning of course)
 - Used for drill of material covered in classroom work
 - Used for instruction in specific skills not presented in classroom work (please specify skills): _____
- Experimental or developmental research
Aim of research: _____
Title and source of any report of the research: _____
- Other use (please specify): _____

Number of credit hours: _____ or number of semesters or quarters credit: _____ students could earn through study with these programmed materials (if applicable).

II. STUDENT POPULATION

1. Prerequisites for students beginning program: _____
2. Assignment of students (please check appropriate alternatives):
 - A. All students in course assigned only to work with programmed materials.
 - B. Students assigned to both classroom and programmed work:
 - All students in course assigned to both
 - Some students assigned to both
 - C. Some students in course assigned to classroom section, others to individual study with programmed self-instructional materials.
If B or C, please indicate the basis on which the assignment of students to classroom or programmed instruction was made (e.g., matched groups assigned to different conditions, students having difficulty with course assigned additional programmed work): _____
3. Age range of students: _____ Grade level (if applicable): _____
4. Number of students starting program: _____
 - Number having previous experience with the language: _____
 - Number successfully completing program within expected or allotted time limits: _____
 - Number successfully completing program, but exceeding expected or allotted time limits: _____
 - Number failing to complete program successfully: _____
 - Number dropping program before testing at end of program: _____

5. If a classroom section was used as a control group:
 Number of students starting course: _____
 Number having previous experience with the language: _____
 Number completing course successfully: _____
 Number failing to complete course successfully: _____
 Number dropping out of course before final examination: _____

III. ADMINISTRATION OF PROGRAM

If there was considerable variation in the amount of time spent by individual students, or by the whole class at different times in the course, please indicate this fact and give average times in answering the following questions.

Number of hours per day: _____, per week: _____ spent working with programmed materials.

Monitor present during sessions: Yes No

Monitor knew the language: Yes No

Monitor's functions were:

Technical duties only (e.g., distributing tapes, taking attendance)

Some instructional duties (describe): _____

If program was used to supplement or was supplemented by other course work, please specify the amount of time spent in course work with other than programmed, self-instructional materials:

Number of hours per day: _____, per week: _____ spent in lecture.

Number of hours per day: _____, per week: _____ spent with instructor in conversation or drill sessions.

Number of hours per day: _____, per week: _____ spent in other activities not involving the use of programmed materials (please specify activities): _____

If there was wide variation in the time spent by different students or by the class at different times in the course (e.g., lectures only given in first few weeks of course), please explain briefly: _____

IIIA. EQUIPMENT USED

1. In presentation of audio materials:

Tape recorder

With provision for student to record

Without provision for student to record

Modified tape recorder (specify modifications): _____

Other audio equipment (please specify): _____

2. In presentation of visual materials:

Programmed book

Teaching machine (please describe or specify type): _____

Other visual display equipment used (please specify): _____

IV. RESULTS OF PROGRAM ADMINISTRATION

1. Completion time (number of hours): Mean: _____ Median: _____ Range: _____

2. Times at which testing was undertaken and test results (please check appropriate boxes for testing undertaken and fill in information requested):

Preliminary testing

		If standardized tests were used, please give:			
	Tests Given (check)	Title	Scores		
			Mean	Median	Range
Aptitude test	<input type="checkbox"/>				
Proficiency or placement test	<input type="checkbox"/>				

Interim testing, during period of program administration (check)

Interim testing results used:

To provide information to the students on their progress in the program

In assignment of remedial or supplementary work

Other uses (please specify): _____

Approximate frequency of interim testing (e.g., after each unit): _____

If students were tested at the end of the program (terminal testing) or sometime after the completion of the program (retention testing) on the skills they acquired through the use of the program, please check appropriate boxes in the following chart. If not, check here and go on to Section V.

Terminal and retention tests

Skill Tested	Time of test (check)		Source of test (check)				If standardized test, please give title
	Terminal	Retention	Included in program	Prepared by instructor or other staff member	Standardized	Other	
Overall proficiency							
Pronunciation							
Conversational fluency							
Listening comprehension							
Reading							
Writing							
Other (specify):							

[We would appreciate receiving copies of any tests prepared by the instructor or other staff member for use in the administration of these programmed materials.]

Please briefly describe test findings: _____

If a control group received classroom instruction instead of programmed instruction, please indicate how the test results for the two groups compare: _____

V. STUDENT UTILIZATION OF SKILLS

If you have follow-up information on the students' use of skills derived from work with these programmed materials, please give approximate percentage of students utilizing skills in the following ways and indicate the adequacy of the skills for their use:

Use of skills	% Students	Adequacy of Skills
Overseas work	_____	_____
Preparation for more advanced coursework	_____	_____
Fulfillment of language requirement	_____	_____
No immediate use planned	_____	_____
Other (specify): _____	_____	_____

If you had a control group receiving classroom instruction, please indicate how the adequacy of the skills acquired by the two groups compare: _____

If you do not already have follow-up information, do you plan to obtain it at a later time? Yes No .

If so, please give the approximate date when you expect to have this information: _____

VI. STUDENT RESPONSE TO PROGRAMMED MATERIALS

If you have information on student reactions to the programmed materials, please answer the following questions. If not, check here and go on to Section VII.

- Did the students find some sections of the program particularly interesting or boring? (please specify which sections): _____

- Were some sections of the program found particularly difficult or easy? (please specify which ones): _____

- Did the students generally regard the programmed materials as more enjoyable and interesting than conventional foreign language instruction?: _____

4. Did they feel they learned more than they would have in a conventional course?: _____
5. Did they think the program demanded more time than a conventional foreign language course?: _____
6. If there were no external means of checking progress, such as quizzes or discussion sections, did many students seem to feel lost or uncertain of their progress?: _____
7. If there were other typical favorable or unfavorable comments on the program, please indicate the more frequent ones: _____

Source of information on student reactions:

- questionnaire interviews informal discussion other (specify): _____

VII. INSTRUCTOR OR SUPERVISOR'S COMMENTS

1. In general, were you satisfied with these programmed materials? Yes No
2. Did students maintain recommended schedule of attendance? Yes No
3. Do you feel the program was especially effective for particular types of students? (e.g., students with high or low aptitudes): _____
4. Did you feel there were any characteristics common to students failing to complete the program successfully (such as ability or attitude) which would help to account for their failure?: _____
5. Did you feel that those students who achieved the best final scores on the program had particular characteristics in common? _____
6. Was the level of the programmed materials appropriate for your students? Yes No (please give specific criticisms): _____
7. Was the content of the program satisfactory? Yes No (please give specific criticisms): _____
8. Were the order and rate of presentation of the subject matter satisfactory? Yes No Comments: _____
9. Do you have suggestions for improving the program? _____
10. Do you plan to use the same programmed materials again? Yes No
 If you do plan to use them again:
 - Same use as reported here
 - different use (please specify type of use): _____
 If you do not plan to use them again, is this because of:
 - inadequacies in the program
 - program inappropriate for your use
 - administrative or curricular problems:
 - problem of providing instruction for students who complete the program before the term is over
 - problems with students who are unable to complete the program within the allotted time
 - lack of teaching personnel to supervise use of programmed materials
 - lack of space or equipment
 - lack of financial support for continued program use
 - difficulty of fitting students into more advanced classes in the regular curriculum
 - other problems (please specify): _____
11. Do you have plans for using other programmed foreign language materials in the near future? Yes No . If so, which ones? _____
12. Do you plan to write programmed foreign language materials yourself? Yes No .