A general review of the development of the language laboratory is given in this article in the light of claims made by early theorists favoring the use of the laboratory in foreign language instruction. Comments are directed to the nature of language, language teaching methodology, and use and criticism of the laboratory. The author concludes that the laboratory is an effective aid in instruction and should be planned for in the design of curriculum. An extensive bibliography is included. (RL)
The Language Laboratory

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During the past decade in the teaching of foreign languages in the United States, the meteoric rise of the language laboratory to its present prominence is worthy of critical study, since the glowing claims of its proponents have not been fulfilled, not because of any failure of this mechanical medium but because of its misapplication in our regimented methods. There is a crying need for more meaningful use of the laboratory with better teaching methods.

Ten or so years ago, the language laboratory was almost unknown, certainly to the traditional language teacher, who might have dismissed the idea of such an innovation as a fad or as a superficial approach, unworthy of scholarly attention. Yet because of the sudden demand for foreign languages and because of the invention of electronic devices coupled with their release and subsidization by the government, language laboratories mushroomed in most of our large metropolitan school systems.

Conservative teachers grudgingly cooperated with the growingly compulsive programs. "Even though you don't agree and don't like it, you'd better make use of this equipment, because it represents a tremendous investment of the taxpayer's money!" was a phrase sometimes heard. Some isolated school districts, without any plans for using such devices, might ask for them since they ostensibly cost nothing, except at first in casual commitments which were ultimately to bring on our present widespread lockstep method of teaching foreign languages in the officially accepted "New Key" or audio-lingual method. Thus an official government pamphlet recently proclaimed after some four reprintings: "The language laboratory makes its greatest contribution as an integral part of a program..."
in which audio-lingual instruction forms the basis for the progressive and continuous development of all the language skills.”

The language laboratory was to be the focal point and means of teaching by a kind of crash method whose presumed effectiveness was trumpeted far and wide. Among the many weaknesses now attributed to the audio-lingual approach, the main one is “too much reliance on mechanical devices for learning.”

A Scientific Allure

A sort of mystique developed around the language laboratory, investing it with almost magical possibilities. One writer aptly said: “The language laboratory can only create a superficial stimulus for those fascinated by its technical or ‘scientific’ allure.” However, this fascination is wearing off, and there is a need for a sober reassessment, if we are to make progress in the teaching of languages, as pointed out by Dr. Meras in his article cited above and by many other critics.

There is growing disenchantment with and criticism of the use of the language laboratory: “It is incumbent upon laboratory researchers, therefore, to interpret their findings conservatively and cautiously and to report all but incontrovertible findings at best.”

Machines are valuable aids in the teaching of languages, but only aids, and they will never replace the keen-minded and well-trained teacher.

Revolution in Language Teaching

Let us consider some of the factors in the rise and spread of the language laboratory. For years the student eager to learn the living spoken language, not only as found in literature but in all aspects of life, had begun to question the language pedagogue’s insistence on only grammar memorization and translation of literary works. Conditions were sometimes worse on the higher university level where professors, complacent and indifferent, lectured in English and expatiated in course after course on the most abstruse philological points and esoteric questions while avoiding any practical aspect of the language. Certainly the ever-widening gulf between the student’s dimmed hopes to master a language and the teacher’s failure to meet his needs were to help spark a revolution in language teaching.
Perhaps to liven his boring chores, the inventive student in the past might have used language records. Indeed the phonograph recording of dialogues was the kernel idea of the language laboratory, and the wire and tape recorder gave further impetus to it.

Next, the multiplying media of communication, bringing every corner of the earth closer together, not only pointed up the importance of languages but also the possibility of better methods of teaching them. The many inventions, from the overhead projector to the broadcasting satellite, presented undreamed-of possibilities.

Is Language a Science?

The term “language laboratory” arose by analogy with the science laboratory, although languages and literature had not been conceived of as sciences such as biology and chemistry in the past: “An unstable E dropped at the wrong place will not turn up red, nor can we analyze rising and falling intonations as alkaline and acid.”

The scientific method did help to discover and explain the often regularly recurring sounds and structures of language. The ancients were aware of these facts. The influence of the scientific method on the study and teaching of languages became more pronounced in the nineteenth century in the field of philology and later spread to the field of literature, by way of literary classification and analysis, especially in our increasingly sterile literary research.

The relating of liberal arts to sciences is no accident, for this has been a growing tendency, particularly in Germanic and American scholarship. This is especially true in totalitarian countries like Russia, where science with an emphasis on technology permeates every aspect of life. Our competitive concern with the latter nation is somewhat causing us to overemphasize technology.

In this century we see the even greater influence of science on linguistics and phonetics which gave rise to the phonetics laboratory, the predecessor of the language laboratory. Middlebury College was a pioneer.

In the recent past there developed an avant-garde movement in linguistics, known as the school of “phonemic analysis.”
"structural linguistics," or lately "the new linguistics," etc., which sees language as a purely contemporary popular expression: "For both practical purposes and scientific analysis, a language is the way people talk, not the way someone thinks they ought to talk."

The phonemicists or structural linguists are often referred to as the descriptivists. The traditionalists are called prescriptivists. The position of the structural or descriptive linguist is an inconsistent one, indeed, for while he regards language as a science, in practice he accepts no traditional norm but only a somewhat amorphous folk speech. The well-trained scholar views language as slowly changing and developing through both popular and cultural influences. The extreme prescriptivist is in an equally untenable position when he refuses to recognize any change.

The new linguists claim a close relationship not only to natural sciences but also to the so-called "behavioral sciences." They have broken completely with the classical and humanistic traditions and explain language as a purely physical skill or habit to be taught and learned by mechanistic methods. They assume a biological and non-intellectual basis for language, which is "far more visceral than cerebral."

The scientist is interested in the physical universe while the scholar of literature is interested in aesthetic and spiritual values. The good scientist and the good literary scholar are not mutually exclusive. The literary scholar should not be a vassal to the sciences nor be enslaved by technology. "But though we be the children of technology we must be its masters and not its slaves."

Doctrinaire groups furnished much of the leadership for the officially accepted new language movement. Its adherents claim that language and its study is a "science." In the expressions "New Math," "New Language," "New Key," we see links with the teaching of mathematics and a mutual jargon in such words as "set," "frame," "pattern," etc. This would-be scientific approach is seen in even more extremist schools such as "psycho-linguistics," "biolinguistics," and "mathematical linguistics." There is an ever-increasing amount of so-called "scientific" language in teaching and learning material emanating from "behavioral research laboratories."

Traditional scholars have been justly critical. Professor
 Watkins plainly states in a previously cited article, “Language is by tradition, and rightly so, considered as one of the humanities rather than one of the sciences.” Indeed, language is not only the door to the humanities but also to the sciences, for civilization is inconceivable without language.

**Laboratory Literature**

There have been in the past few years numerous volumes and hundreds of articles written on the language laboratory, and some are continuing to appear. A bibliography of these would make a sizable tome. Some of them deal with the purely mechanical aspects and maintenance. Others deal with the laboratory and its use in the audio-lingual method, with emphasis on drill and repetition. While a number of these works voice approval of this mechanical medium associated with the mechanistic audio-lingual method, there is an ever-growing number of highly critical ones, questioning the validity of this method and even the use of the laboratory itself as it is currently applied. Finally, quite a few suggest its use with more meaningful and better methods, especially the direct audio-visual.

**Methods and Laboratory**

When we discuss the language laboratory, we must necessarily think of it in terms of language teaching methods. In several current methods: 1) the traditional, 2) the audio-lingual, and 3) the direct audio-visual method. The first is the traditional method which uses texts that emphasize the study of grammar in English and the translating of numerous sentences from English into the foreign language. For the second year, this system is usually followed by a similar review grammar with even more English exercises to be translated. The third year may include a sort of review of review grammars, from which the student must translate whole themes. While this method is not completely bad, it is certainly inadequate to teach a foreign language effectively. However, this method is better than the dialogue-parroting one, the second method prevalent today, which is often represented as the audio-lingual, aural-oral, or “New Key” method, bolstered by laboratory hardware. The originators of this method seem to have chanced upon the words “New Key” from Susanne K. Langer’s *Philosophy in a New Key*. 

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Expensive makeshift volumes, always accompanied by costly tapes for laboratory use, are creating a "textbook jungle." Concerning these texts and tapes which are all "almost hypnotically boring and repetitious," one critic says: "Since 'poor' and 'mediocre' best describe the vast majority of each year's new and revised texts, the value of most tapes is obviously minimal."

In spite of this patent situation, the writer has been shocked to note that the United States Office of Education has just recently made a grant of $159,525 to ascertain whether the audio-lingual method is more effective than the traditional method.

As one language scholar writes, "The much-needed reassessment of our profession . . . set the stage for a general overhauling of foreign language teaching and led to a period of unprecedented activity—though not necessarily of unprecedented success."

In initiating this stultifying method, based upon Pavlovian psychology, audio-lingualists required of students endless repetition and "relentless drill."

The audio-lingual method not only does not require any intellectual effort on the part of the student, but its purpose is to bring him 'not to think' in any language. Thought is discouraged, although "it is the intelligence of the student which, it seems to me, we should cultivate more in the language classroom, and which has been overlooked by high-powered methodology." In her severe criticism of the lack of using the intellect in the audio-lingual method, a writer says that "it now appears that the mind can take lessons from the tongue." She also has another incisive comment: "Too often we're getting completely thoughtless responses—canned answers, probably, to canned questions."

**Language Institutes**

The Language Institute Program was established through government subsidy. Growing numbers of these hastily-contrived institutes were launched, in which teachers have been trained to use the laboratory in the audio-lingual method. "A major application of the university language laboratory is for training teachers not only in the language they will teach but also in the use of the language laboratory."

Concerning these programs, one teacher likens the lectures
to "wartime indoctrination sessions." Myron gives a pessimistic description of the whole program tied in with the institutes: "At institutes, seasoned and less-experienced colleagues alike are now assembled and instructed in the jargon of the new language game."  

Discussing the future of the institutes, one writer seems to assume there is no other method but the audio-lingual. Hocking says that "even some of the NDEA Institutes seem not to have heard of visuals."  

Groundswell of Criticism

There is a groundswell of criticism against our lockstep laboratory methods: "I do not believe that the cause of either language or of education is served when we use our expensive laboratory equipment to drill into the unwilling heads of our students endless sets of disconnected inanities."  

A teacher from France states, "We are training civilized and cultivated young people, not parrots that can only repeat phrases learned by rote or banalities fabricated in assemblyline fashion." Another states that language "cannot be acquired by the mere parroting of dialogues and patterns without some sort of intellectual process."  

It is difficult to explain our Juggernaut course in our somewhat "strange revolution," so aptly described by Myron: "If unchecked the overaccent and imbalance will lead, through its already anti-intellectual and illiberal trends, to the eventual mechanization of subject matter and regimentation of the human beings with whom we deal."  

One writer criticizes the one-school domination for the use of words out of their accepted meaning: "A further evidence of a drift toward the same kind of one-school domination which, until recently, shackled the public schools, is the trend for preempting common terms to compose a special jargon. Terms like 'conversational,' 'aural,' 'oral,' 'pattern,' 'linguistic' can no longer be used with impunity in their full legitimate meaning." An amusing article has been written by John C. Merrill on the "New Language" jargon, which he dubs "Novalinguistication."  

Another critic commiserates with the students coerced into laboratory attendance: "There is nevertheless a considerable majority which, when herded in 'masses and lumps' into the bee-
hive cells of the lab, slump and relax, then twist and squirm. No more aggressive protest in the guise of passive revolt could he witnessed within the educational precincts today.”

Another teacher has this to say: “Although foreign language teaching has become more of a science, it must not overlook the sensitivity of the learner.” She asks: “Is the audiolingual approach to foreign languages increasing the sale of tranquilizers to college students?”

While some of the articles voice an indirect disapproval of the laboratory, most of the criticisms, if we note well, are leveled at the audio-lingual method. Meras enumerates six glaring faults of this method including over-reliance on the laboratory, pattern drills, and repetition. The student is unable “to meet emergency needs in conversation,” and his vocabulary is too limited in scope to read even modern literature. He finally points out that there is “less work accomplished than by previous methods although more time is spent in teaching and more time consumed in learning.”

Keating emphasizes that he is criticizing the current use of the laboratory, making it clear that the laboratory doubtless has untapped possibilities: “No attempt was made...to indicate what results would be obtained under some ideal...program...into which the laboratory has been integrated according to organizational principles not yet widely accepted...this study has attempted to assay the results that were obtained with the laboratory as it was actually being used.”

Researchers have emphasized the need for investigations to bring out undiscovered potential application: “Certain uses of the laboratory remain to be explored...Use of the laboratory should not be limited to one type of exercise, nor one type of course, nor one grade level. Its application will differ in different learning situations.”

To solve our impasse Meras suggests a return to the direct method, with audio-visual aids and cited John Carroll, a psychologist, who found that “materials presented visually are more easily learned and more accurately than materials presented orally.” Although Meras finds many faults in the audio-lingual method, he remains an apologist for it and feels that it can be salvaged by being combined with the direct audio-visual. He
seems to equate the audio-visual method with the so-called “Saint Cloud Method,” which certainly leaves much to be desired.42

The Better Audio-visual Method

The third or best method, according to some language experts, is an entirely direct audio-visual method, used in the more up-to-date educational institutions in the teaching of French. This system emphasizes at the very outset the exclusive use of the foreign language by the visual method associated simultaneously with the spoken word and the concomitant study of living grammar and all the other aspects of culture.

This method still remains relatively unknown. Elton Hocking says: “Many teachers are unprepared to use such revolutionary material; most schools still lack a language laboratory, and most of the labs do not provide for visuals.”43 He cites a number of experts who show that effective language teaching and effective use of the laboratory lie in audio-visual aids.44

The audio-visual method is really the way a mother teaches language to her child. She does it in a relevant and meaningful way, not by endless mechanical repetition. The well-trained teacher does not at all reject the laboratory but simply its misuse. Indeed, he welcomes it, giving it a much broader concept and function in both the visual and auditory sense. The visual elements are not only presented by way of pictures but also in the form of living examples, specimens, drawings, charts, music, sounds, movements, etc.

The resourceful teacher invents his own laboratory in his daily class, if need be. The electronic devices of the so-called language laboratory are not really basically necessary, although these are helpful in supplying numerous native voices.

This writer had the opportunity of witnessing the effective use of the audio-visual method in teaching French at the Alliance Française in Paris and at its branch in Mexico City. This program is built around the three-volume series of Gaston Mauger, entitled Cours de langue et de civilisation françaises. The native teacher uses filmstrips to show on a screen basic objects from the immediate environment which are identified by the spoken word and logically related to everyday activities. The pictures and written words of the beginning text relate directly to the images of the filmstrips. The first volume contains sixty-
five lessons, and the filmstrips are used along with the first twenty-five lessons in an intensive audio-visual presentation.

Commercial tapes with native voices accompany filmstrips for the first twenty-five lessons. More tapes are being made. This writer is at present using these tapes, filmstrips, and also slides in his French classes.

When to Use the Laboratory

There is no settled opinion on how much or how often the laboratory should be used, whether it should be integrated with classwork or whether it should be used separately. Research seems to show that about an hour a week is devoted to this purpose. Some institutions, however, seem to require an excessive use of the laboratory.

William S. Vincent believes the laboratory should be used for the first year only: "If a school wishes to employ the language laboratory, its best move in the light of these results is to schedule first year language students into the lab for frequent and intensive exercises in speech production. Once a student 'has the tongue in his head,' the value of the laboratory appears to have passed its peak." In many institutions laboratory attendance is becoming optional or students put in a token appearance once or twice during the course.

The idea that a language student reaches a saturation point or peak in the use of such materials in language learning may be a reaction to the aimless laboratory work of the audio-lingual method, for certainly audio-visual materials, meaningfully planned and related to classroom work, are useful to all levels of language learning, as pointed out by Sarah W. Lorge.

Thus far our large and expensive laboratories have been mostly listening centers, arranged in cubicles with earphones. Our problem lies in the limited exploitation of the laboratory. Although the laboratory of the future will include such acoustical facilities, other needs, such as the visual, will have to be taken into account.

We have considered the effective use of the language laboratory with the audio-visual method for the beginning level of learning a foreign language. However, a more sophisticated use of the language laboratory is not only conceivable but has been realized beyond this elementary level. In Mexico City at the
Institut Français audiovisuel et linguistique (IFAL) this writer attended classes with programmed audio-visual French materials presented effectively for all levels. Although writers loosely mention "visuals" or "visual aids" in language teaching, for the best and most effective foreign language teaching, we should think in terms of a sustained audio-visual method integrated with class work.

While the Mauger method is a truly audio-visual method when properly applied, there are other texts for secondary and elementary levels: Robin and Bergeaud's *Le Français par la méthode directe* and Mauger and Gougenheim's *Le Français élémentaire*. There are several commercial texts for teaching foreign languages through pictures, such as I. A. Richards' *French Through Pictures*, *Spanish Through Pictures*, etc., which offer possibilities for the imaginative teacher to use in a beginning course.

**Programming**

Some writers give rather glowing accounts of the possibilities of programmed teaching and learning through the language laboratory without sufficiently considering the question of methods.50

Our elementary language program needs reappraisal.51 Programmed and televised classes are excellent when integrated with serious class work. One of our greatest lacks is a well-defined program that progresses logically and gradually in a well-articulated and coordinated curriculum. This lack of coordination stems from the lack of planning and from a general unawareness of where we are going in foreign languages.

After the initiation of Foreign Language in Elementary Schools (FLES) some fifteen years ago, language enrollment in elementary schools shot from several thousand to today's several millions. Obviously our staff and language program were not adequate to meet these mass demands. Therefore a makeshift program was used to pay lip-service to public demands. In many cases so-called "programmed" classes were set up with "piped-in" television programs once or twice a week. In these infrequent classes that lasted perhaps only fifteen or thirty minutes, the poorly trained teacher sometimes acted only as a sort of monitor, going through the motions and posturings of teaching a foreign
language. Television programming and teaching machines may well become a curse instead of a blessing.52

The Audio-visual Laboratory

Yet the laboratory and its various teaching machines, if properly used, should be regarded by the language teacher as a blessing and not as a bane. However, it is better to begin with a modest outlay of inexpensive equipment. No device should be acquired unless there is real need for it. The first acquisition should be a tape recorder and a projector for both filmstrips and slides, which can be economically combined. Also pictures from various sources, relevantly portraying textual materials, are very useful. In fact, the enlisting of artistic talent in the class or in the school to make needed drawings is usually inexpensive and yet supplies excellent aids by adding further visual material to a lesson which may not be fully and adequately pictured in the text. Such pictures can be made into slides very reasonably and will serve for permanent use. A fault of the advanced Mauger texts is the lack of more pictures directly associated with reading passages. The student can solve this problem somewhat by acquiring a picture or visual dictionary. Finally we must not fail to mention the overhead projector as an important instrument for supplying visual aids.53 The teacher should also make full use of the chalkboard as a visual teaching device. A moving picture projector with adequate space for showing various films will also serve to enrich a foreign language program.

The well-stocked laboratory should include maps, dolls in native costumes, puppets, picture postcards, pictures of castles and cathedrals, paintings by famous painters, photographs and paintings of great writers and personages, portrayals of games, sports, customs and traditions. All these and others, both mechanical and otherwise, might well contribute to a good laboratory in the broadest sense of the meaning. However, we must remember that better teaching has more often been done with fewer gadgets and less laboratory hardware, while much worse teaching has been done with a surfeit of these, as has, alas, been the case in our average American school. Our poverty is not of things, but of the spirit.

We should by all means make way for, and allow, the well-trained teacher to use his talents to the fullest in the most
progressive methods along with a meaningful use of the laboratory facilities. Such a teacher, freed from the bondage of the routine audio-lingual method, could serve as an example in pilot projects here and there, which could eventually arouse and awaken others in less-developed states.

Stressing the need for teachers well-trained in audio-visual techniques, Dr. Scuorzo points out that the flaw in audio-visual teaching often lies not in laboratory "hardware" but in the "software" of the teaching material and its presentation. He warns that the audio-visual program can be given the kiss of death when the material presented is aimless and extraneous to the work at hand and not closely integrated with well-planned lessons.54

The anti-intellectual tendency of the audio-lingual method with its mechanistic habit-learning theory has been stressed and deplored. The purpose of all education should be the use of the intellect, including all the faculties of the mind. While memorization should be done, it must be done meaningfully and intelligently. The learning of a foreign language, when done properly, is an exciting and rewarding adventure into a new realm. We must not kill the enthusiasm and anticipation that young people have as they embark upon this new and important educational experience.

There has been much healthful and vigorous criticism, and there are visible signs of taking stock and of progressive growth. The language laboratory is a splendid aid, and it would be foolish to try to do away with it. This would be like trying to do away with automobiles and telephones. We must recognize and accept the fact that the language laboratory has its proper place, and it is most effective when used audio-visually and directly in the foreign language.

For biographical notes on CALVIN ANDRE CLAUDEL, see p. 141.

FOOTNOTES


3. Richard A. Mazzara, "Now That We Have a Language Laboratory, What Do We Do With It?" THE FRENCH REVIEW, XXXII, No. 6, May 1959, 565.


21. Ibid., 180.


24. Ibid., 235.


27. Herbert B. Myron, Jr., "Languages, Cultures, and Belles-Lettres." THE
44. Ibid., 88-39.

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