Advice on how to obtain a language laboratory is accompanied by observations on how to make language tapes. Flexibility in planning the laboratory, a thorough demonstration of the new laboratory, demonstrations on making tapes, a maintenance program, and the need for periodic servicing of the laboratory are considered vital. The primary function; the basic principles—involving listening, responding, and repetition; and equipment are discussed. (RL)
YOU TOO CAN HAVE A LANGUAGE LABORATORY!
(Also: Advice on How to Make Language Tapes)

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Every time my colleagues in the language teaching profession visit and participate in a demonstration of one of those $25,000 complex language laboratory installations their first remark afterward is invariably: "Well, this is all very fine—but how can WE have one at OUR school?" Let me assure you at the outset that the IDEA of a language laboratory is not at all impossible nor is the expense of setting it up too imposing for the average high school, small college or, as will surely be the coming thing, the elementary school modern language program. Before actually planning and constructing a laboratory you should know exactly what you expect to gain from its use. This will depend very much on what you conceive the language laboratory to be, in what ways you intend to use it, how much time in the teaching-learning schedule you intend to devote to it, and, of course, the limits of your budget.

Primary Function

A language laboratory, no matter how simple or how elaborate, is first and foremost an AID to the language instruction program in your school. It is there to supplement and complement what the language instructor does in the classroom. As such it is of tremendous value in the oral-aural phase of the instruction. It follows, therefore, that if you desire to stress the oral use of the modern language as well as aural comprehension of that language spoken by natives at normal speed, you will be using your laboratory much more frequently than if you desire to have equal time devoted to oral-aural training and to composition, translation exercises, rapid reading, literature as such, the philosophy of literature, etc. In other words, your language laboratory should be adapted to YOUR specific needs. This is why there is no "standard" or "approved" language laboratory set-up in a package which you merely purchase, install, and follow the directions on the box.

Before going further, let us state what a language laboratory is NOT. It is NOT a gadget or magical device which will teach language for you. It is NOT an instrument which will lighten the work-load of the language instructor—in fact, when put to its proper use, the language lab demands MORE time and energy from the teaching staff than regular classroom procedures do. Yet the results are so gratifying in the improvement you notice in your students, that the whole project seems well worth the effort. All of this is to say that
the language laboratory is merely like the blackboard in your classroom: no matter if it is edged in pink plastic, lighted with special fluorescent tubes and tinted in soft green its effectiveness is directly proportional to what you write on it and in what various ways you work with, drill, revamp, repeat and magnify the material on the board. No language laboratory can hope to accomplish any more than this.

Basic Principle

The basic principle operating in any effective language laboratory is that of: LISTEN and RESPOND. Actually, then, if you merely play a phonograph record of a speaker saying a short simple phrase or sentence in, say, French and get your students as individuals or a group or both to imitate out loud what they hear, you are already operating a language laboratory. But, as everyone knows, many recordings of foreign language material allow no pauses in which the listener has time to imitate. What is more, many of the more up-to-date “record methods” may grant the listener a brief moment for imitating what he hears, but alas! the phrase is uttered but once and the record moves on to faster and more complex material! This violates the root principle of all language learning: repetition. You might as well let your students know the cold harsh fact sooner or later: identical with learning to play a musical instrument with any reasonable competence, the use of constant drill and repetition in language learning is of utmost importance. To be truthful about it, when you get to the point of being sick of going over and over a Beethoven run or a French idiomatic phrase—you’ve got it! And there are still people who believe you can buy an expensive set of a dozen or so language records, sit down, play them through once and get up practically a native speaker!

But another flaw in the classroom listen-and-respond techniques is to be found in the fact that the listener is not sure of what he hears. Therefore his response is faulty. If he repeats this process even a few times he is learning language incorrectly. And once in this rut, it is very difficult to extricate him. Any language teacher knows this from classroom experience. A student insists on imitating the teacher’s pronunciation incorrectly and it may take several semesters of hard pulling to set him straight on one or two of his pet “mistakes.” Here is where the modern electronic laboratory comes to our aid. It generally employs the principle of listening through headphones or earphones which accomplishes two things: they concentrate the sound in the listener’s ear and cut out all other exterior and distracting sounds or noises. Furthermore, even moderately priced headphones will give you a much “higher fi” than your home telephone; that is, sounds will be clear and distinct and individually discernible.
For further protection from outside distractions, it is recommended that your students be seated in semi-isolated booths in order to carry on their electronic listen-and-respond practice session.

How to Start

Obviously for a modest start you need only a decent tape recorder, some usable recorded material in the foreign language, a small jack-box which you can plug into the tape recorder and into which you can plug several sets of headphones and you are in business. This arrangement is better than having the students listen to the tape recorder through its regular loudspeaker.

If a permanent space for your laboratory can be found anywhere around the school your best bet is to construct individual booths with a separate headset in each booth. Depending on your budget, you may want to install booths with acoustical lining. Many commercial houses which sell the electronic equipment also sell these booths. You can, if you like, do it yourself, by obtaining several long tables (cafeteria or library type) and set up booth dividers (three or four to a table) with upright sections of any durable hardboard (your local lumber dealer can show you a variety of thicknesses and styles). Allow enough space to make each booth at least three feet wide and make the upright dividers just high enough to shut out vision on three sides when the student is seated in the booth. With the help of a pistol-type soldering iron, some insulated (but not necessarily shielded) wire of not too heavy a gauge, a supply of screws and a screwdriver you can install your outlets for the headphones and other electronic equipment in a few hours. It is preferable to position all such contacts well concealed under the table with only a minimum number of wires coming up through a small hole or two in each booth-space so as to insure against tampering and accidental injury to the equipment. The main artery connecting all the headsets with a tape recorder can run overhead or under the flooring to a separate location at which the instructor or an appointed operator can manipulate the tape recorder. This distance will depend greatly on the amount of space you have for the whole layout. Remember that with such a hookup you can always add another table of booths without having to alter your basic wiring system.

Good—Better—Best

What has been described above might be characterized by the term “OK” as far as a workable and usable language laboratory goes. Now if we spend just a little more money and add the feature of the student's not only hearing the recorded material electronically but also hearing his own response through the headphones we have what
is essentially a GOOD system. This is accomplished by having a small unit installed in each booth which not only has a selector-switch on it for tuning in the language he wants to hear (assuming you have a laboratory in which you would have two or more tape recorders playing different language "programs" at the same time), but also has a microphone into which the student says his imitation of the recorded material and hears that response simultaneously through his own earphones. Nothing is so good for aural training than to hear your own response through the same source as the "Master" program. A simple volume control on the apparatus will take care of variations of loudness in individual student voices.

If the above is GOOD, then what is BETTER? Well, from the instructor's viewpoint it will be of a great advantage to be able to MONITOR the individual responses of the students in their booths. Walking around the lab and "kibitzing" into each booth is not only unsatisfactory, but it is poor policy to break in on what is high concentration on the part of the serious student. Much BETTER to install adjacent to the playing source (the tape recorder) a MONITOR STATION at which the instructor can, by flipping individual switches, "tune in" on the response of any particular student at any time he desires. With this setup the student is hearing the material electronically, he is hearing his imitation of it electronically, and the instructor can also hear both the "program" and the student response electronically. Thus, corrections of pronunciations are based on much more accurate "hearings," rather than "I thought I said so-and-so," or "You may think I pronounced it thus-and-so, but I really said so-and-so."

BETTER than BETTER would be, of course, a system whereby complete control of the "programs" as well as "tuning in" on student response is in the hands of the instructor. This can be achieved by eliminating the selector switch in each booth and controlling program selection from the master panel, or monitor station. In many schools with a multi-lingual setup, knowing the playful habits of the American youth, it might be very wise to do this simply to avoid having to reprimand a student for listening in on a language he is not studying at that particular time—either out of curiosity or sheer devilment. Being able to select the student's program for him and listen to his response is an excellent check on his progress. What is more, if there are several levels of programs in the same language being played at the same time (e. g. first-year French verb drills on one tape, a third year French conversation idiom practice on another) it will be extremely advantageous for the instructor to make sure that the right student is listening and responding to the right material.

The BEST option to be found in the basic listen-and-respond setup will be an arrangement whereby the instructor can TALK BACK. Thus, if in addition to selecting programs and monitoring student response, the instructor can also "break in" on a student by speak-
ing into a microphone which can be connected to any particular student's earphones, you have the chance to correct errors on the spot, or to suggest in a few helpful explanations wherein the listener might improve his response. Here, then, we have a maximum of control of the laboratory activity. If the instructor wants to give pronunciation hints or do any other sort of "teaching" from the master panel, he needs merely to stop the tape recording temporarily and talk back to the students through his microphone. Remember that the language laboratory is NOT primarily a teaching device per se, and does not take into account the kinesics (facial expressions, gesticulations, emotional attachments in language which are registered in body movements, however slight) which the personal contact in the classroom gives you. Therefore, as will be mentioned later, the material on the tapes (or records) should be primarily drill and practice material and not complex explanations or romantic philosophizing about language. The monitor-talkback system, however, permits a neat and periodic check on the progress of your students.

If one wants an elaborate system, he would install in each booth a simple individual tape recorder into which the student could speak his response and then play it back for himself and/or his instructor to check with a view to improvement in subsequent recordings.

The Big Question: THE TAPES

Going on our original premise that the language laboratory is an effective aid in language learning only when it presents well designed material to the student and does so with the best pedagogical procedures in mind, we face the problem: what materials shall I use and where can I get them? As first choice, carefully selected material recorded by a native speaker of the language who has a good, clear, non-dialectal pronunciation is desirable. Second choice is material recorded by a near-native. I define as near-native one who by virtue, of study and living abroad has acquired such proficiency in the foreign language that his pronunciation habits are good patterns for students to imitate. The near-native may often be one who has actually been taken for a native by speakers of the mother tongue being studied. You, the language instructor, may very well be that near-native of whom I speak.

I cannot overemphasize the fact the near-native may often be far more desirable for tape material than the native speaker. The latter, unless trained and experienced in language teaching techniques and thoroughly familiar with American culture and the educational background of the average American student, will often as not lapse into too much speed, dialect peculiarities, misplaced emphasis and, worst of all, totally unnatural intonation patterns in longer phrases or sentences. This last is the result of "linguistic neurosis," or the over-desire to say something "dictionary correct," as well as just plain
nervousness before a recording microphone. Hence, even though your own distinction between open and closed vowels is not quite what it ought to be, or you cannot say a good North German "r," or your palatalizations in Russian lack a Slavic flavor, you still might be better off in the rudimentary pronunciation drills taping your own material with your own voice, rather than recording a so-called "native" speaker of the language who has been so long removed from his original culture that he has actually forgotten a good deal of his mother tongue and its true characteristics and who, worse yet, will want to argue with what you are doing and what you are trying to accomplish through this laboratory technique.

Do not underestimate the value of the new commercial tape recordings in modern languages. Although much of the material may often not be related to the particular lesson unit you are studying, the quality of the voices and the recordings is so good that you should be able to use some of these tapes to advantage. Go over the material beforehand and play and re-play only a small portion pertinent to your lesson-unit. There is always the possibility too of recording disc material into tape and "creating" longer response pauses. Fortunately, several publishing houses are now going in for producing language tapes in conjunction with a text they are marketing.

Again, however, let me stress that each language teacher (or department) will, at the present, have to more or less design his own tape material and scheduling and use of the lab. All of this will vary greatly with the purposes of the laboratory and the amount of time you have for its use. Thus, even a set of well-done, hi-fi recorded commercial tapes may adapt themselves easily to a language program which schedules from three to five lab periods in addition to the class work per week, but would have to be edited considerably and stretched out over a longer period of instruction in a program which could only possibly allow for one laboratory period per week. Likewise, because of lack of space you may be able to construct only a small number of booths and hence would have to schedule your students in shifts, thus limiting the number of laboratory hours for each student. Also, if the laboratory is to be open on a voluntary basis after regular school hours a trustworthy operator should be on hand at all times to check on equipment and student behavior. Unless the instructor is also there the student will not have anyone around to check his responses. In no case should you play a given program (including as many repetitions of the same material as you desire) longer than twenty minutes, as fatigue from concentration sets in and the student's response is noticeably poorer. This is why shorter and more frequent laboratory periods are highly recommended.

If possible, it is desirable to have a separate recording booth for making the tapes. Any small room without too much echo will do. The important thing is to get someone familiar with the tape recorder to instruct you in how to make a good tape. Proper regulation of the
tone and volume controls will give better results in an ordinary room than improper regulation of the dials in an ideally constructed sound-proof recording chamber. In general, record at a slightly higher volume than that at which you play the tapes. That is, you can "tone" down a tape and diminish the little unwanted noises but you cannot boost a tape up which has been recorded too softly without also sending a greatly magnified version of the extraneous noises into your listener's ear. If your tape has too many coughs, grunts and sounds of falling pencils or scraping chairs on it you had better erase that portion of it and do it over. All such unwanted sounds are a terrible distraction to the student while listening, or if they are downright funny he may lose his concentration entirely. And by all means allow a little extra time for the repeat pauses than you think necessary! For example, if you record the German phrase: "Danke, es geht mir gut" say it fairly slowly and with good enunciation and pronunciation into the microphone, then count 1-2-3 to yourself, say the phrase to yourself at the same speed you said it aloud, then repeat it aloud into the microphone, again count 1-2-3, say the phrase to yourself without rushing, then proceed to the next phrase. These pauses may seem inordinately long to you, the recorder, but they will be just about the right length to the student who will always wait a second or two before actually making his response. Then, if you repeat the phrase too quickly (i.e., before he has quite finished his response) he will become discouraged and feel he simply cannot keep up with you. It follows that taping long and involved sentences for listen-and-respond drills is out of the question.

You should clearly label your tapes not only on the box containing the tape but also with a stick-on label on the tape itself. A little pencil or ink mark on this tape-label will indicate the various divisions of a tape which contains two or more different sections of material. It is a good idea to scratch a line across the tape-label where the tape material ends so that any operator unfamiliar with the material or the language can stop the tape there and not go on playing blank tape to your students.

You should put a "tail" or piece of leader tape on the front end of your tape. This will save constant wear and tear on the beginning of the tape with the threat of even losing some if the first few phrases of the recorded material. By all means allot a space away from direct heat or sunlight in which to store your tapes and records, arranged by languages and in some orderly fashion. Unless you follow these procedures you will soon forget what you have, or some bright day somebody will knock over a pile of unlabeled tapes and getting them back into the proper boxes will be one grand mess!

Keep copies of the texts (typed, mimeographed, or simply marked on specific pages in your teaching textbook) which you record on tape in a separate file for handy reference, or if you should have to re-record any portion of a tape which has become worn or badly dam-
aged through an accident. An inexpensive tape-splicer and some rolls of splicing tape will come in handy because tape does tear once in a while. If neatly spliced it will be just as strong as ever and last for many more playings.

In Summary

Throughout this article it has been my intent to speak in more or less general terms, with a view to proving to you that building and using a language lab in your school is quite within the realm of possibility.

If you hire the services of a commercial firm to make your installation insist on the following: (1) efficient and flexible location of the equipment so that it can be added to without completely revamping everything; (2) a thorough demonstration of operation, PLUS full and satisfactory instruction in the making of tapes; (3) a maintenance program with assurance of fast service when equipment goes out; (4) a periodic checkover and cleaning of the electronic equipment.

This language laboratory business is new. Many experiments are being performed by teachers and many teaching theories formulated. We are feeling our way and learning as we go. There is much we do not know and much good fruit that will grow out of the close cooperation of the electronic engineers with the language instructors. Never before in our history has there been such a bright spotlight on the learning of languages.