

"THE LANGUAGE LABORATORY: A RELIC OF THE PAST OR THE SOLUTION TO THE FUTURE?"

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Fellow Directors,

I did not come to bury the Lab . . . nor to praise it either, I am not here to tell you that the language lab is dead, for dead it is not . . . quite; nor to tell you, either, that it is in great jeopardy of its life, for that, I trust, you all know.

If some among us should doubt the existence of the present crisis of the language lab, I would remind them that the evil seeds sown a few years ago by the Keating report¹ are now bearing fruit.

Of course we all know that the Keating report should be dismissed as not scientifically sound. It is nonetheless true that it has stirred up sympathetic echoes because it reflected the ill-informed opinions of many. And then, if it did not prove that the language lab is an inefficient tool, it did seem to indicate that the language lab was not operating any miracles in the schools and we know too well that it is the case in many, too many, other institutions. Then came the Smith report on the Pennsylvania project,² which cannot be dismissed as lightly as the Keating report because it is better documented, and, therefore, much more disturbing.

Of course, (and those of us who attended Dr. Smith's excellent presentation followed by the very incisive and cogent discussion by Professors Valette and Marxheimer at NALLD's December meeting in New York are fully aware of it) this report does not bring any earthshaking revelation either. It does not prove that the language lab cannot be used effectively but simply that in a sizeable sector of the nation's schools—and probably a fairly representative one—it is not used effectively in the great majority of cases throughout the country.

And *that* is disturbing indeed. What is even *more* disturbing is that this sad fact is known by more and more misinformed people who will draw from it the erroneous conclusion that the language lab is no good in itself and should be relegated among the various foolish and catastrophic experiments of the past.

¹*A Study of the Effectiveness of Language Laboratories*, Keating, Raymond F., Institute of Administrative Research, Teachers College, Columbia University, 1963.

²Smith, Phillip D., "An Assessment of Three Foreign Language Teaching Strategies Utilizing Three Language Laboratory Systems."

If the language laboratory, which seems to offer such wonderful possibilities does not produce the results expected, it must be either that too much is expected from it, or that it is improperly used.

I believe both are true: 1. it is improperly used.

2. too much is expected of it.

First of all nobody really knows what a language laboratory is. So many various and sundry conglomerations of equipment go under that name, that in order to find what is common to all of them, and makes them language laboratories, you have to get down to features so general that they mean very little. The concept of language laboratory is eminently vague. It is difficult to know what can be expected of such a nebulous tool. Considering that this very imprecision of the terminology opens the door to all kinds of confusions and misconceptions.

Our association might perhaps help improve things by appointing a committee whose assignment would be to elaborate a definition of the language laboratory or propose a better term.

A great deal of the trouble in the present crisis of the language laboratory originated in words: catchy phrases, great technically sounding terms, impressive slogans which are bandied around by manufacturers, teachers, administrators, who never bothered to stop and reflect on what they covered and represented in terms of actual language learning.

Do we all mean exactly the same thing when we say: "Library type lab, electronic classroom, random access, high-fidelity"?

Though we are in the word business we are not immune to the deceitful power of words and rhetoric, who for example, would not be wholeheartedly for "complete recording facilities for all" or "individualized learning," "each student progressing at his own pace according to his ability" and other democratic sounding formulas?

And, of course, there is nothing wrong at all with these notions. The trouble is that they sometimes cover up practices which are not entirely justified. Take student recording. A few years ago it was a very catholic article of faith that any good language laboratory had to provide full student recording facilities. Paradise was considered as a lab where each student would be able to record and play back his voice.

Few people then would stop to think that recording can be useful only for phonology work, which is a very important and basic aspect of language learning indeed but only a very small section of the whole picture.

Nor did they reflect that students who mispronounce usually do so because they do not perceive the foreign sounds correctly. Hence, when comparing their own recording with the model, they usually fail to perceive the difference between the two for the same reason

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which made them mispronounce in the first place. Not hearing any difference between model plus imitation, they are pleased with their performance no matter how horrendous, and go on practicing their own errors with a beautiful smile of satisfaction on their face. The drilling of their own errors is all the more intensive in that what they really care for, what they focus on, what fascinates them is their own voice—not that of the model!

Thus a very sound, very legitimate emphasis put on oral production, on the importance of accurate imitation of native speakers, has led thousands of students to wasting most of their time in the laboratory tape-recorder controls, rewinding tapes and practicing conscientiously—in the snug privacy of their booth—their own pet errors.

And this, at an expense to their school which is several times that of a simpler installation which could perhaps have been used more profitably.

I believe that the present crisis of the language laboratory is due to a great extent to such technological inflation.

I mean by this that, too often we have installed more hardware than could be used efficiently, or that we knew how to use efficiently, and we have become to some extent enslaved to our hardware.

Another instance of this technological inflation might be found in the notion of electronic classroom.

(If we mean by that a system in which suitable electronic equipment is installed in several, if not all, classrooms where foreign languages are taught, as opposed to a central installation where students go outside of the regular class periods).

Having the equipment right there, at one's finger tips, at any time, is indeed a wonderful convenience for the teacher but it requires, for the same total number of student-hours of use, an investment many times that of a central installation in which the equipment, through proper scheduling, could be used at near full capacity.

I do not mean by this remark to throw any discredit on the electronic classroom (which is used here only as an example of a very general phenomenon). The electronic classroom is a great idea in itself. All I am saying is that electronic classrooms have sometimes been installed before all other possibilities and their relative advantages and disadvantages had been carefully studied. If such a study had been made, other solutions could have been found in some cases, which would have provided higher quality equipment, for the same amount of money.

All I am saying is that one great cause of the present crisis is that we have often spent too much money on equipment in relation to what we are getting from it.

Another example of "technological inflation" can be found in those cases where a school installed a sophisticated and expensive

dial or touch tone telephone type switching system when the laboratory is used by groups of students on a scheduled basis. In such cases one may wonder whether a few rotary switches at the console and a few hundred dollars worth of wiring would have not served just as well as the multi-thousand dollar switching system.

I think that our association could render a great service to the whole profession, and the cause of language teaching, by seeking ways of informing school administrators and teachers of the pros and cons of various types of language laboratory systems and their relative costs in terms of quality and possibilities of use.

I imagine that objective analysis developed and endorsed by the Association could have a very beneficial influence.

This "technological inflation" points out, too, another cause of the present crisis: the role played by the manufacturers. Too many of them have encouraged this technological inflation without realizing that they were thus bringing about a crisis from which they would be the first to suffer. Did you notice that sales of audio equipment went down in 1967 about 14%. Manufacturers have encouraged the full "student-recording" notion, for example, because they like to be able to sell a dual tape machine for each station, (sometimes they have even succeeded in selling two complete tape machines per station). They encourage for the same reasons the electronic classroom system and the most expensive switching systems instead of encouraging their customers to buy equipment of better quality.

It seems that they can make more money faster by selling more hardware which is less expensive—and, therefore, of less good quality, than they could in selling less hardware of better quality, and therefore, relatively more expensive.

This leads us to another major cause of the crisis: by-and-large language laboratory equipment is inferior in quality to what it should be. It is not as sturdy and reliable as one might wish and the quality of sound reproduction is not always adequate.

All discussions of sound quality desirable in the language laboratory have been based on intelligibility studies which are irrelevant to the problem of Foreign Language teaching because they are concerned with intelligibility of a language which is perfectly known by the listener.

It sounds fairly obvious that no language laboratory can teach sounds which it does not reproduce. However, a majority of the language laboratories in the country are incapable of reproducing the full range of human voice.

The role of noise is too often neglected. The same intelligibility studies show that it takes a very high level of noise to interfere with intelligibility. Granted. But there again, what is true for a known language is unapplicable to a language which is foreign to the lis-

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tener. In addition noise is tiring, annoying, and interferes with the learning process even if the learner is not aware of it.

Audio technology is presently capable of delivering much better quality than we actually need but we are not getting it. We are not getting it because we have let ourselves be persuaded that we did not need it and that we should rather put our money in more hardware and more gadgetry.

We are not getting it because we do not bother, when we purchase new equipment, to run through electrical tests to check whether the specifications have been fully met. If we do make some measurements when the equipment is installed, we often neglect to run tests periodically and simply ignore the constant deterioration of the system.

I think it is highly desirable that our association develop a set of specifications for sound reproduction in Foreign Language learning applications.

These specifications should not reflect present practice—nor should they reflect excessive concern for cost and implementation because the state of the art in electronics is such that what we need is obtainable within reasonable cost. These specifications should be developed independently of all and any manufacturer. To insure such independence, foundation money should be sought to finance the necessary research.

These specifications should be followed by precise description of electrical testing procedures. They should be made easily available.

Audio technology is not only already capable of exceeding by far our requirements, but it progresses every day.

This progress is indeed reflected in our labs. Laboratories are, on the whole, better than they were 15 years ago, but the observable progress is far from corresponding to that accomplished by audio technology in the same period of time.

As a matter of fact, a strange phenomenon takes place: it seems that every technological progress tends to bring about eventually, a certain regression.

This sounds rather paradoxical at first but can be explained partly by the fact that we depend to a great extent on the non-professional market. For example, the majority of tape transports still used in language laboratory were originally developed for home use. What constitutes a progress for that market is not necessarily a progress for our applications.

For instance any technological advance which makes it possible to crowd more program on less tape, (such as slower speed, narrower tracks, thinner tapes) is indeed a bonus for the non-professional market. Not so much for us: it is much more important for our own application, to improve the sound quality than to crowd four or six hours of program on a five inch reel, or two hours on a "cassette" cartridge.

The "cassette" is a good example of the influence of the non-professional, "home" market on the destinies of the language laboratory.

Cassettes are presently infiltrating the language laboratories as a result of their success on the non-professional market.

It is certain that the cassette represents a technical progress for home users. They offer incontestable advantages of compactness, light weight, ease of loading and relatively low costs. It is on the basis of these advantages that they are being considered for some language laboratories though these advantages are less significant in the language laboratory context. The fact that they represent a regression from the sound quality now offered by the best language laboratories system is not even taken into account in spite of its primordial importance.

Cassettes have made remarkable progress within the past year, but they still do not match, in sound quality the best 7½ ips, full track (or even half track) recordings on ¼ inch, 1.5 mil tape, which I consider, at present as the standard desirable for foreign language learning. They may be further improved in the future but one cannot be sure that the requirements of the big market to which they cater will justify the research and development investments necessary to bring them to a higher degree of perfection. Unfortunately their present quality may be amply sufficient to satisfy the musical aspirations of most teenagers and other not so discriminating users.

One may predict, on the basis of past experience, that cassettes will find their way into many language laboratories before they have been perfected enough to meet all the requirements, before it has been ascertained that (1) there are no better systems for the purpose (2) that the playback machines are rugged enough to provide consistent, trouble-free operation even in the hands of students (3) that the materials to be used are available in the cassette format, and, if not, that it will be possible to produce cassette duplicates of consistently high quality (4) that the light-weight and compactness of the playback machines will not encourage some students to take them home for purposes other than language study . . .

If it happens, the cassettes, though they are a remarkable technical *tour-de-force* capable of rendering eventually great services to the language laboratories (particularly in making possible the automatic loading of the play back machines), will only precipitate the fall.

Those among you who have reached as advanced an age as I, will remember that many years ago, the advent of magnetic discs endangered the language laboratory in a similar way.

The advent of video tapes threatens to have the same effect. In as much as it adds the visual element to the sound, the video tape marks undoubtedly an advance; on the other hand it constitutes a

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regression in as much as this multi-thousand dollar machine offers a soundtrack generally inferior to that of an average \$300 conventional tape playback.

I am convinced that the present crisis in labs is due, in part, to the fact that we have sometimes accepted to pay for improvements, which were not always essential, by a loss in an area which was more important for our own specific purposes.

Television may be a still better example of this phenomenon since its advent brought about, in our field, a notable regression, not only in the technical quality of the teaching materials but, in most cases in their very contents.

Motion pictures—as recorded on sound film—have been used in teaching for over 30 years. In that time, the medium has reached a very high degree of sophistication. Sound films have been produced which are excellent both from the point of view of technical quality and of exploitation of all the possibilities of the medium.

Then came television which presented certain advantages over the film, because it offered faster and wider distribution of the program.

But the gains offered by the technical progress were paid for by a considerable loss both in technical quality of picture *and* sound, *and*—rather surprisingly—by a loss in the contents. Though (and perhaps—precisely, *because* TV programs are easier to produce than film, they have displayed on the whole—much less imagination—and sophistication than films.

Many educational TV programs have shown little more than a teacher and a blackboard, thus constituting a serious regression from the traditional teaching medium; since a teacher and blackboard are much better life-size and in full color, three dimensional presence than as a small, flickering, snowy, black and white ghost gesticulating and talking his head off miles away.

This is not to say that TV does not offer excellent possibilities for teaching in general and foreign language teaching in particular, as has been demonstrated by a few programs.

But, in other cases, its advent has, indeed, debased the quality of the language teaching as has been demonstrated by many other programs.

The same thing seems to be true again with the application of computer technology. There is no doubt that this technological advance can help in the foreign language learning especially when third or fourth generation descendants of Harlon Lane's SAID³ will be able to analyze the students' oral production.

However, most present efforts in this area represent a re-

³SAID—Speech Auto-Instructional Device.

gression mostly because they are conducted without an adequate audio component and, in some cases, are based on an obsolete foreign-language teaching methodology which was adopted because it lended itself to the new medium.

So, to take advantage of the possibilities of the new medium we sometimes throw overboard the gain we had painstakingly made in the past few years.

The present crisis is in part due to the fact that we have been too prompt in jumping on passing band wagons without making sure that we would be able to carry our own tune. In our eagerness to jump, we are not aware that we are leaving behind us essential acquisitions.

If we all believe—as I certainly do for my part—that the language laboratory is worth saving, we must find ways of holding our own, we must find ways of preserving our standards, we must learn to keep *first things first*, and for that we have to learn to resist alluring calls of technical mermaids—at least until we have been able to convince them to come our way rather than us going theirs.

The inadequacies of software have played just as important a part as those of the hardware. The technical quality of the tapes is, in the majority of cases, inadequate, whether they have been produced locally or by a commercial publisher. Of course, all the tapes played in the laboratories that *we* direct are crisp, crystal clear and clean as a whistle, absolutely free of extraneous noises, transients, hum, hiss distortion of any sort . . .

But you could not believe what is the normal fare of *other* laboratories!

The reasons are obvious for most locally produced tapes: lack in adequate studio and professional equipment, lack in competent technicians, lack in really good speakers, lack in time—but above all lack of adequate standards: as long as the teacher who produces the tape recognizes the voice and understands what is being said he considers that the recording is good enough and will serve its purpose.

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The situation is often as bad with commercially produced tapes. In fact, we have on several occasions been forced to produce locally

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tapes, at great expense of time, effort, and money, to *replace* commercial tapes which had proved unusable.

Most of the reasons listed above apply here. The trouble is that most publishers still consider the tapes as a necessary evil, a mere adjunct to the book, which they produce only in order to sell the books. But their *product* is *not* the *tape* but the book. They know a lot about books, much less about tapes, and are not too interested in knowing more. They are anxious to produce the tape as cheaply as possible, and are resigned to giving it away at cost.

As long as the publishers will not consider the recorded materials as a product in itself, as long as they will not be able to make a profit on them independently of the correlated printed materials, we will continue to get too many inferior recordings.

The present attitude of most publishers results in such evils as the tape loan system, in which the publisher lends to the customer a set which the school duplicates again on its own equipment with, in most cases, deplorable results. The publishers loan-tape is of poor quality (it is not a master tape but a high speed duplicate several generations removed from the original) and it often has been mis-handled by preceding users. Furthermore, schools have inferior duplicating equipment and no competent sound engineers to do the work and the whole process tends to introduce one more generation.

Many publishers offer their recorded materials on low speed, dual track tapes which cannot be used directly, thus requiring duplication and redistribution into more manageable reels—a time consuming operation which results in tape of still inferior quality.

A considerable amount of progress is needed in this area to eliminate the problem. But this is an area where the action of our Association could be very efficient.

Recommendations to the publishers could be made very easily and without great expense since the number of publishers involved is limited and I believe that they would carry a lot of weight.

Finally I will list briefly some of the reasons why many language laboratories have failed.

The enthusiasm and appetite of students for the daily fare offered in the laboratory tends to diminish after a few weeks. Why?

Because: the laboratory work is not sufficiently integrated with the rest of the work done in the course.

Because: work in the laboratory is not reflected by grade or other mark of achievement. Teachers go their own way in class without bothering much about what happens in the laboratory.

They neglect to see that students are prepared to work profitably in the laboratory.

They do not check in class whether work done in the laboratory has brought any results.

Because: laboratory materials are not adequate for laboratory work. They do not take into account the requirements imposed by the laboratory medium.

Because: they are boring.
they consist mainly of repetition.
even problem-solving exercises are not challenging enough.
exercises are mechanical, consist of semantically unrelated items.

Because: the activity required of students is purely academic, does not approximate real life speech production.

Because: the speech used is artificial and has been contrived for the purpose of the exercises,
is not real, authentic speech with all its suprasegmental elements and reference to a meaningful, known context.

Because: Exercises are not varied enough in type and nature
delivery is monotonous—intonations are flat.

Because: Speakers *read* their lines—they do not *speak* them as they would in real life (they are poor actors)

Because: voices are unpleasant.

Because: responses expected of students are exclusively oral.

Because: no visual support is ever used.

I think it can be predicted that if the prevailing practices are not radically changed the language laboratory will indeed be a thing of the past in a few years.

It seems incredible that such a fine tool might be washed away by the presently mounting wave of criticism but it is not impossible at all. Remember the radical change brought about by the Coleman report. It happened—here—in this country. Full fledged laboratories had existed in the past (I am thinking of the one at Ohio State in the early thirties) and have been washed away, eradicated from the face of the earth. It can happen again. And if it does, it's not only the language laboratory which will go, but with it all that has been gained in foreign language learning in the past decade.

The tidal wave can still be stopped if we succeed in improving technical quality both in hardware and software.

If we succeed in integrating fully the use of technology in the total teaching process.

This means if we succeed in integrating the visual element effectively, before too many video tape laboratories are installed which will be condemned as ineffective because of lack of programs or because of lack of *adequate* programs.

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This means also if we succeed in integrating the computer effectively before too many CAI experiments are condemned as ineffective because they are based on obsolete foreign language learning methods or fail to include adequate sound component.

If we can do that—and there is no reason why we couldn't—then the language laboratory is indeed the solution of the future.

It all depends on us, the language laboratory people. What is in our hands is not only the fate of the language laboratory but the fate of the foreign language teaching itself which is doomed whether it is conceded to the proponents of an exclusive CAI approach or the present critics of the language laboratory take over.

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