

## THE LANGUAGE LABORATORY VS. THE ELECTRONIC CLASSROOM

by  
Harry Regenstreif  
Coordinator of Foreign Languages  
Ann Arbor Public Schools  
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Since both the language laboratory and the electronic classroom are designed to perform the same function, that of assisting the teacher in presenting to the students certain aspects of the language learning process, it would be wise to begin this paper by describing some of the characteristics that serve to differentiate between these two types of installation.

The typical secondary school language laboratory is a more-or-less centrally located room or rooms to which foreign language classes come, almost always in accordance with a pre-arranged schedule of use. This paper will not concern itself with the language laboratory used in what is called the "library mode," which accepts students on an individual basis, a type of operation generally employed by colleges and universities. Therefore, the three key elements that characterize the language laboratory are that:

1. The laboratory site is separate from the regular foreign language classrooms—although not necessarily at any great distance.
2. The facility is used by class groups and not by individual students.
3. It is necessary to follow some sort of schedule to avoid having two or more classes show up at the language laboratory at the same time.

The electronic classroom differs from the language laboratory only as regards points 1 and 3, above.

Like the language laboratory it is typically employed by entire classes, but unlike the language laboratory it does not require classes to move to a central installation since the equipment and materials are located in the regular classroom. Given this important difference of location, it is obviously unnecessary, and certainly unwise, to employ a schedule which must "work around" other classes.

There need be no important differences in the equipment and materials used by the two types of installations being compared since the instructional goals are the same. The only essential differences revolve around the questions of location and accessibility. It is true that language laboratories more frequently employ partitioned booths than do electronic classrooms, but these differences in furniture are merely circumstantial and not definitive.

Electronic classrooms may vary widely in layout. Some employ the "perimeter" plan which has the student equipment arranged against the walls, with the regular class being conducted in the center of the room. The use of "islands" or "dividers" which run between rows of chairs is another configuration employed by some schools. It is also possible to purchase student desks which can be fitted with an amplifier and headset. One school has the headset jacks built into the floor, with the wiring underneath. Wireless systems are also available with each student's headset containing a miniature radio receiver. "Chandelier" classrooms hang the equipment from the ceiling, and come in both fixed and retractable models. There can be other types of installations, but the arrangement of equipment is of secondary importance and does not serve to differentiate between language laboratory and electronic classroom, but only between different types of electronic classrooms.

Having attempted to make clear the essential differences between the language laboratory and the electronic classroom, it is hoped that certain advantages of a pedagogical nature, on the side of the electronic classroom, become obvious. Probably the most important advantage accrues from the freedom to do away with schedules. Any sort of pre-arranged schedule imposes certain unnatural and undesirable constraints on optimum teaching and learning processes. Anyone who has taught junior high and senior high foreign language classes knows that there occur unpredictable moments when the learning situation is ideal for the use of language laboratory equipment. If this equipment is available on an instant's notice in the teacher's own classroom, then it is possible to take advantage of the situation, but if the schedule dictates that the language laboratory equipment is to be used by someone else at that time—then the golden opportunity is irretrievably lost. The irony of the situation is that the class which is using the language laboratory might perhaps be better employed at that particular time in reviewing homework, taking a test, or doing something else other than using the laboratory. To be succinct we can say that although the central language laboratory must be used on a predetermined scheduled basis, the electronic classroom can be used on a demand basis. The use of language laboratory is in response to a schedule; the use of the electronic classroom is in response to a learning situation.

In addition to the pedagogical advantages which result from freedom from schedules, we can also add improved accessibility which results from having a self-contained language classroom. In some schools it is presently necessary for the teacher to shepherd his class down one or more halls from the classroom to the laboratory. This is non-productive time which more than once has resulted in discipline problems and which adds an unwelcome touch of disorder to the smooth operation of a school. The progress of a class on its way to the language laboratory frequently leaves in its wake a series of disrupted classes, slammed doors, and frayed tempers. Even when class discipline is perfect, the trip to the language laboratory still remains unproductive and disruptive of the learning process. The self-contained foreign language class will save valuable class time, reduce movement through the halls, and probably foster increased use of electronic aids.

Providing each language classroom with its own electronic equipment presents each teacher with expanded opportunities to familiarize himself with the equipment. This increased opportunity to experiment can be expected to lead to increased expertise and self-confidence in using the equipment which would, in turn, lead to more effective use of electronic facilities. It is possible to hope that the tape-assisted language lesson which fails because the teacher can't make the tape deck work or doesn't know how to monitor students will be a thing of the past, as will the equipment and material which gathers dust because it is never used.

To summarize the pedagogical advantages of the electronic classroom we can say that it makes the language class more flexible and effective by making it possible for the teacher to use electronic aids on a demand basis rather than on a pre-arranged basis. There is also a reduction in the amount of non-productive time spent in taking a class from one room to another with its concomitant disruption of the learning process and occasional discipline problem. Finally there is the increased familiarity and skill in operating the electronic equipment that can be expected when each teacher has his own equipment in his classroom.

There are, however, certain features viewed, by some, as advantages that the language laboratory can claim more easily than can most electronic classrooms. Most teachers would not wish to teach in a classroom that was broken up by individual booths for each student, but some of these same teachers do want a laboratory situation which employs booths. They feel that the booths are valuable for acoustically isolated students, for maintaining good laboratory discipline, and essential for carrying on in-booth recording by students. Those who hold these views would probably prefer the traditional language laboratory.

However, many language teachers prefer to do away with booths since they feel that cushioned ear pads on headsets provide all the acoustical isolation that is necessary, believe that booths cause more discipline problems than they solve, and don't want in-booth recording facilities either because they feel that they serve no pedagogically valid purpose, are too expensive, or too time consuming if the teacher tries to audit the tapes made.

Certain electronic classroom installations are unfortunately characterized by setting-up procedures which require the students and the teacher to remove equipment from storage cabinets, plug in different components, and otherwise spend time in an unproductive manner. Where this is the case accessibility is reduced, disruption is introduced, and the time-saving advantage which a well-designed electronic classroom can claim over a language laboratory is lost.

Even when we accept the pedagogical superiority of the electronic classroom over the language laboratory we may be faced with doubts relating to the implementation of installing several electronic classrooms instead of one central language laboratory. No matter how valuable an educational innovation may seem to be, if the funds necessary to implement it are not available, then it will die aborning. Fortunately, electronic classrooms are not only not too expensive to consider, they can actually be installed more economically than can a central language laboratory. Let us turn for an example to the new Ann Arbor Huron High School now under construction. This high school will require six foreign language classrooms. Each room will be equipped with electronic classroom equipment of the chandelier type, capable of handling thirty students. The console will have an Ampex tape deck as a lesson source, a built-in loudspeaker to be used when headsets are not desirable, monitoring, intercom, and all-call capabilities, built-in storage space, and input jacks for two additional program sources when necessary. The total cost of the six electronic classrooms will be somewhat less than \$18,000. To have built a special language laboratory room would have cost in the neighborhood of \$25,000\* just for the room; to this we would have to add several thousand dollars more for electronics equipment and furniture, and still have an installation felt to be inferior to the more economical electronic classroom.

Those who are considering installing new foreign language electronic aids, or who are contemplating replacing old equipment would do well to consider electronic classrooms as an alternative to the central language laboratory.

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\*Huron High School will cost an estimated \$30.00 per square foot to construct.