



New Installations

THE CASSETTE LIBRARY LAB AT RIDGEWOOD HIGH SCHOOL

by Robert K. Tracy

When the language staff at Ridgewood High School, in 1969, began its search for a language laboratory, it had several considerations in mind:

1. We wanted a facility which could free the student to obtain an audio program suited to his own needs, and which could break the lock-step.
2. At the same time, we recognized that, on occasion, lock-step broadcasting of programs might be desirable or expedient.
3. We wanted to be able to provide the kind of "library" facility wherein students could report for language practice, outside of class, and at a time convenient to them, and wherein multiple access to selected programs directly related to classroom work of the moment would be available.

For a long time during the course of our two year's research, some kind of dial access information retrieval system, coupled with a teacher console, seemed the logical and only viable solution. However, some nagging drawbacks remained: A) the cost of installation of a complete system seemed very high; B) upkeep costs, estimated at \$5,000 per year, appeared absolutely prohibitive; C) undesirable features simply were not palatable to us (e.g.: lack of capability for total individual student control of the program, etc.)

Our early investigations into the possibilities of a cassette lab had left some serious doubts about their suitability. First of all, there was a logistical problem; how to produce, catalog, and store multiple copies of all the programs (possibly up to 3,000 when unit tapes were properly segmented into 10-20 minute work session programs). Secondly, we lacked faith in the audio characteristics and durability of cassette machinery. As the dial access approach became less appealing, and a cassette lab vendor convinced us of great improvement in the qualities of cassette transports, we hit upon the idea of a three-part library which would alleviate the logistical problems we had forseen. It is in this respect, I think, that the Ridgewood lab is somewhat unique among secondary school labs.

Briefly, this three-part library consists of:

- 1) A master reel collection. Reels, because they are A) more commonly available commercially; B) more easily edited; C) capable of giving higher fidelity when duplicated. This collection is contained in the lab office along with the duplicating and proces-

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sing equipment, and assures us a safe-guard against loss of programs through possible student mishandling or pilferage. These reel tapes are used only for dubbing cassette copies.

2) A master cassette collection, consisting of cassette duplicates of the reel tapes, and labeled identically. This collection of tapes is housed in the lab proper, directly behind the console and service area where they simplify use of the lab in the "classroom" mode. These same tapes are also drawn upon by students looking for review or enrichment tapes.

3) An "assigned tape" collection, the content of which varies according to changes in the classroom work. This collection is maintained in a series of vertically arranged bins placed along one wall near the door of the lab and past which students file on the way to carrels. Each bin is labeled with a teacher's name and the numeral of one of his class periods. The tapes placed here are produced on a high speed cassette dubber (Telex 235), our present capacity being six cassettes on one run. They are used by students reporting on study hall time, or before or after school, and of course have been assigned to aural-oral practice of topics under study in the classroom. When the topics change, the outdated tapes are bulk erased and returned to the raw stock shelves. The use of removable labels, and a coding system for bin placement facilitate the return of stray tapes.

Perhaps this will be more clearly understood from an illustration. First, please understand that two code numbers appear on each label; one for *bin* identification and the other for *content* identification.

Let's suppose that Mr. Gonzalez meets with one of his Spanish classes during period 4 daily. The bin identification number for cassettes for this class is derived from "S" for Spanish, "GO" for Gonzalez, and "4" for the class period. Thus, "SGO4" tells us where the tape belongs.

The tape content number comes from our tape register (copies of which are given to each teacher and which are continually added to as new programs are processed). We designate the following categories of tapes: B = Basic; C = Cultural; L = Literature; M = Music Programs within categories are then numbered sequentially. A sample code content number then might be "FB-008", indicating a French tape of basic material, perhaps of lesson 8, (although little concern is given the relationship between the tape number and the lesson number to which it applies). The tape register describes the program by name, lesson, exercise no., etc., and in addition, it lists running time of segments, and specifies the availability of printed texts, filmstrips, or slides accompanying the audio program. This is a modified

Stack¹ approach. We also use an adapted Goldsworthy² processing route slip system for in-shop work on software.

While we're on the subject of coding systems, I should mention that we also assign code numbers to our lab users, to facilitate lab usage records and research. The need for code numbers for students becomes apparent when one considers that of the total 1990 students in our three-year high school, 1022 are studying foreign languages. Our staff numbers 14 modern language teachers with an aggregate 54 class sections. Toward the beginning of the school year, we obtain enrollment lists for all these classes and make up lab passes. The pass does two things: releases the student from study hall, and helps him remember his number. When he enters the lab, he signs in, giving only his code number and time of arrival. When he leaves, he receives a return pass to study hall. It notes his time of departure and is stamped with the date. He must also sign out, indicating the time, and the total number of minutes spent in lab practice. Since the sign-in sheet is changed every period, we are able to post these data immediately in an attendance log containing separate pages for each language class. In this way we enable teachers to see how much time their students are spending in the lab. Classroom evaluation and lab testing are used to determine how profitably that time has been spent.

It is a lot of book-work, but since we have the services of 32 student assistants (each of whom is scheduled in to work a minimum of 2 periods per week) the whole process flows quite smoothly. The true importance of attendance data will be seen in the results of year-end standardized tests, when they are compared to the results of the same tests administered last year to students who had no lab work, and who therefore represent our control group. We are testing all of our French and Spanish, levels II and III, students in listening comprehension. With the assistance of ETS, 50 Spanish II and 50 French III students, randomly selected, are tested in speaking.

In an effort to help the student who doesn't have time during the school day to get to the lab, we offer an overnight lending service on not only tapes, but also portable cassette recorders (Craig model 2603, of which we have 14). This service is very popular and students receive credit for home use of tapes just as they do for in-lab use. Our lab proper comprises:

- A) The teacher console (Cybervox) with 4 program sources (one reel-to-reel, three cassettes); the capability of total-teacher-control

¹Edward Stack, *The Language Laboratory and Modern Language Teaching*, (Oxford Univ. Press, 1960).

²T. R. Goldsworthy, Univ. of Wisconsin, Language Laboratory Director.

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of all student stations; intercom-monitor, grouping and group-call switching.

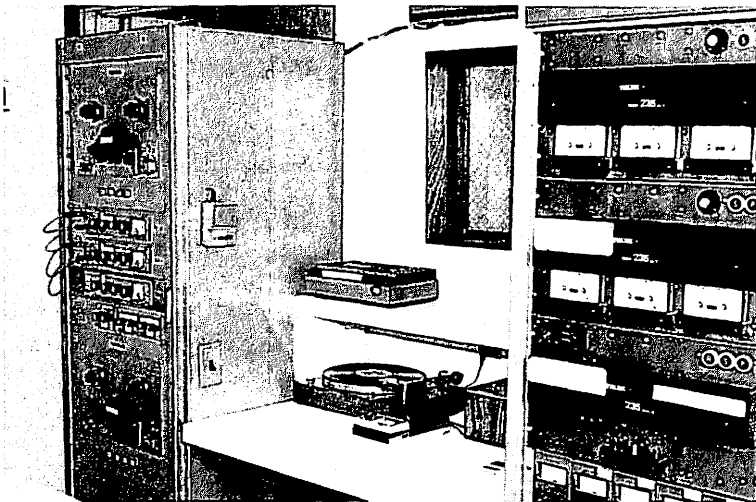
B) The cassette collection and the assigned tape collection, previously discussed.

C) Thirty-six student stations, facing the console. Twenty-four of these contain built-in cassette transports and audio-active headsets. The remaining twelve stations are audio-active-record positions incorporating more sophisticated cassette transports with separate master and student tracks (1 and 4 respectively), and "recap" functions which permit instantaneous replay or re-record. We specified that a special female jack be installed in each of these record units so that the student mike could be overridden in favor of an automatic pulse-toned filmstrip or slide projector. For this purpose also, the carrel has a high front panel of white Formica, for use as a projection screen

D) A long counter adjoining the console, where users are served, where they sign in and out, and which provides storage space for equipment, materials listings books, etc.

The lab office is behind the console area. A small window permits office personnel to keep an eye on activity in the lab, but at the same time, be involved in the production of materials. Production equipment, in addition to the dubber, includes:

A) A mastering machine with two reel-to-reel, quarter-track decks, a stereo cassette deck, a turntable, and three self-energizing hi-fi speakers. A high quality uni-directional microphone and microphone mixer are also patched into the mastering machine,



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but are located in a small (4' x 9') acoustically-treated recording studio. Remote controls in the studio can start or stop the mastering machine. An intercom system exists between the studio and the lab office so that a teacher can have technical assistance at the mastering machine while making live recordings.

B) A tape timer mounted on a stripped-down Viking deck.

C) A rewind machine for simultaneous high speed rewinding of up to six cassettes (as they come off the dubber).

D) A thermal photocopying machine for preparing spirit master unit copies of new tape register entries. (These are distributed to teachers for inclusion in their personal copies of our materials listings books, and provide them with all the information they need to write up program requests for the assigned tape bins.)

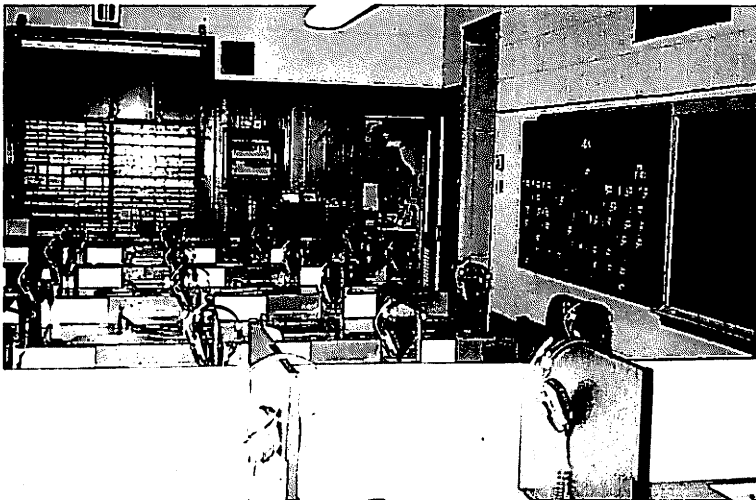
E) A reel-to-reel editing deck.

F) The master reel tape collection.

G) The raw stock closet.

In order to assure adequate supervision of the lab (open for business from 7:45 am to 3:45 pm) the local board of education agreed to hire a full-time lab attendant. We managed to secure one with some valuable lab directing experience in a university dial access system. An NDEA matching-fund grant helped persuade the board to accept the design proposed for the lab, after it had been developed by the language staff, our system-wide instructional media coordinator, and the author.

In my capacity as lab director, I oversee the operation of the facility, but also teach three classes per day. This arrangement has



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worked out fairly well, despite an occasional "crush". A few statistics may clarify the latter point. At the end of our first semester of operation, we had:

- processed (written up, edited, timed, shelved) 1757 programs;
- produced 3300 cassette duplications of selected programs;
- trained 1022 students in the use of the facility;
- trained 32 student assistants in the technical aspects of our operation;
- served 5590 users on a library basis;
- received 112 classes;
- loaned out overnight, 359 tapes and 165 recorders;
- kept accurate records on lab use and transmitted printed data to all language teachers on a monthly basis.

Though we are admittedly biased, we believe that we have devised one of those rare secondary school language laboratories that has the flexibility, organization, and depth of personnel and materials required to meet a variety of individual and pedagogical language learning demands.

