

# *The Baruch College Solution: A Laboratory for Improving Communication Skills of Non-Native Speakers of American English*

*Baruch College, City University of New York, has constructed a Speech Communication Laboratory designed to meet the needs of approximately 45% of its students who come from language or dialectal backgrounds other than standard American English. In both tutorial and classroom settings, the laboratory provides audio, video, and computer-interactive materials that supplement speech department courses in English as a Second Language (ESL) and Standard English as a Second Dialect (SESD). On site, a full-time laboratory technician assists in the evaluation and placement of student, develops individualized instructional programs, and directs all laboratory activities.*

**I**n any urban setting in the United States, it is not surprising to find colleges and universities with diverse and multi-ethnic student populations.

Consider the case of Baruch College, one of the four-year institutions of the City University of New York (CUNY). Divided among several buildings in lower Manhattan—among them the landmark building at 23rd Street & Lexington Avenue, site of the original City College of New York—Baruch's campus welcomes approximately 16,000 graduate and undergraduate students who commute to college from all parts of New York, and increas-

ingly, from the surrounding New York metropolitan area as well.

In addition to the diversity inherent in a "commuter campus," Baruch also enjoys the diversity of a multi-ethnic student body.

According to recent enrollment statistics, 43% of the 13,000 undergraduates are white, 27% are black, 15.6% are Hispanic, and 15.6% are Asian or of other ethnicity.

For Fall 1985, 68% of the entering Freshman class listed English as the language spoken at home, 15% listed Spanish, and 10.5% listed other languages, including Greek, Haitian French, Korean, Russian, and Vietnamese, as their primary language.

For the undergraduate division as a whole, it is estimated that over one-third of Baruch's students come from language backgrounds other than English. In addition to those students for whom English is a second language, as many as 15% of the students entering Baruch College use non-standard varieties of English that are considered inappropriate or unacceptable in a university setting. These are the students who need exposure to Standard English as a Second Dialect (SESD).

Because Baruch College is predominantly a

business school (almost 79% of undergraduates are business majors), there is a strong desire on the part of the alumni and the business/professional community to upgrade the communication skills of the highly-trained Baruch graduates in order to give them an advantage in today's competitive job market. To achieve this end, every Baruch College student must pass a battery of Skills Assessment Tests by his or her junior year. The Speech Department, along with the English Department and compensatory programs in Reading and Mathematics, plays an essential role in helping ESL and SEDS students pass these assessment tests, thereby reducing the traditionally high failure rate among these students.

The Speech Department offers specific courses which complement courses in the English and Compensatory Education Departments and are geared toward improving the speaking, listening, and communication skills of ESL and SEDS students. The most important goal is to mainstream these students as quickly as possible from non-credit ESL and SEDS courses to credit courses in the college's base curriculum—including the required speech course.

With the support of a Title III federal grant, the Speech Department and the School of Liberal Arts and Sciences of Baruch College have established an innovative Speech Communications Laboratory specifically designed to help both ESL and SEDS students pass the Skills Assessment Tests, move speedily into credit courses at the college, and improve the speaking, listening, and communication skills so essential in their future careers.

### **The Speech Communications Laboratory**

Presently, the Baruch College Speech Communications Laboratory is divided into three general learning areas, two-thirds of which are reserved for student activities, and one third of the facility is a dedicated learning resources area.

### **Audio Area**

There are 22 student stations, 16 of which are audio-alone, while 6 are audio-plus-computer stations. The 22 student carrels are deliberately arranged "in the round" in order to allow for integrated, face-to-face classroom activities, preprogrammed individual activities, and group instructional activities. There are no barriers between student stations; the center of the laboratory is an open area with an instructor's desk in order to permit duplication of the typical communicative environment of speech and communication classes at Baruch.

The Speech Communications Laboratory is equipped with the AS 4M Laboratory System distributed and installed by Educational Technology, Inc. of Merrick, New York. The audio-cassette tape recorders are random access tape recorders with four-motor cassette drives. The 22 recorders can be used in library, pair, or group functions. Audio, computer, and video programs are controlled through the central control panel, and up to four separate programs can originate from the master console.

Currently, the primary functions or activities of the audio are four-fold, namely, screening, tutorials, supplemental, and practice.

**Screening.** All incoming Baruch College students have their speaking and listening skills screened. We have created a master program that tests speech production and oral mastery of grammatical forms in spontaneous and structured contexts, as well as listening comprehension screening through a question-and-answer format. Students are assigned specific days and times for speech screening; however, speech screening also takes place in the laboratory throughout the year on a referral basis.

**Tutorials.** Currently, most of the tutorial activities are designed and used for pronunciation improvement.

**Supplemental.** Supplementary classroom instruction is an important function and con-

sists primarily of preprogrammed audio cassette tape programs that accompany textbooks currently required in ESL and SEDS speech courses.

**Practice.** The use of structured programs for the improvement of listening comprehension and conversational skills such as *Listening in the Real World* (Rost and Stratton, 1982) and *Faces—Exchanging Views in English* (Blaskey and Chafcouloff, 1985) and classroom-generated activities are the major audio-type activities for comprehension and conversational practice.

As a commuter college, we are aware of the limitations and difficulties we face in asking students to prepare audio cassette assignments at home. The Audio Area of the laboratory provides a comfortable environment where students can practice and prepare speech class assignments under quiet, monitored conditions.

Currently, students in Speech, ESL, and SEDS courses are required to attend one fifty-minute tutorial per week in addition to the regular classroom-based activities that occur in the laboratory.

## The Computer-Audio Area

In the computer area, we have interfaced the AS 4M laboratory system with six IBM XT computers, one of which is equipped with a QuadLink unit which enables us to adapt the IBM XT for use with some Apple IIc and Apple IIe software programs that are of specific value to adult ESL and SEDS learners.

The central console also houses an IBM XT with both hard and floppy disk capacity. There is an Epson printer at the console for hardcopy print-outs of student work.

In addition to laboratory functions, the central computer is used for the ongoing cataloging of all materials and equipment in the Speech Laboratory. We are also developing a national bulletin board for speaking and listening skills in ESL and SEDS instruction which

will become a part of the Reference Area activities. Furthermore, the computer at the central console is equipped with a Hayes modem which permits the Speech Laboratory to have access to main frame centers throughout the City University system.

The computer area also houses two audio-computer interfaced Visi-Pitch systems supplied and installed by Kay Elemetrics of Pine Brook, New Jersey.

Originally, the Visi-Pitch equipment was designed to aid clinical pathologists working with hearing impaired clients; working with visual representations of speech, speech professionals helped their clients see their speech output in terms of comparison to model speech forms.

We are using the Visi-Pitch 6095 specifically for improving the articulation and pronunciation skills of ESL and SEDS students in the following ways: 1) teaching the suprasegmental features of American English—intonation, lexical, and sentential stress, rhythm, and juncture; 2) teaching vowel contrasts, particularly long and short vowel differences; and, 3) teaching voiced/voiceless consonant contrasts.

The Visi-Pitch system, linked to the Epson printer at the console, gives students hardcopy print-outs of their performance; by calculating a series of statistical comparisons between their performance and the target speech sounds they are trying to achieve, Visi-Pitch shows them how closely their speech matches the model voice. This system also tracks their progress over time.

We have found Visi-Pitch particularly helpful in breaking through the fossilized speech patterns of adult second language learners who have already achieved communicative competence in English and who cannot move toward more native-like speech production through auditory stimuli alone.

## The Video Area

The Video Area of the laboratory is not limited to a specific or fixed area. It consists

of a movie/camera recorder (Panasonic's Reporter Model AG 100) which can be tripod or shoulder mounted for portability. The open center space of the laboratory permits the facility to be readily converted into an impromptu television studio for video taping student performances.

There are two Hitachi 25" television monitors at either end of the laboratory for viewing video materials and one Hitachi video deck, model VT1100A. The two television monitors are cabled together to permit simultaneous viewing of one video source when the laboratory is being used for large group instruction. In addition, video programs can be downloaded through the central console to the six student computer monitors for individualized as well as small group instruction.

### Resources Area

The third of the laboratory reserved for learning resources contains textbooks, journals, and other reference materials for ESL and SEDS instructors who use the Speech Laboratory, as well as manuals for all audio, video, and computer systems in the laboratory.

As noted previously, the Speech Laboratory has several preprogrammed audio tape programs accompanying textbooks or workbooks used in ESL and SEDS classes. For several of the most popular texts currently in use, the Resources Area provides up to 25 copies for use by the entire class or for tutorials.

In addition to the preprogrammed materials, we are in the process of developing in-house audio materials based on analysis of common articulation and pronunciation "errors" made by specific groups of first language learners such as the elimination of word-final consonants by Chinese ESL learners.

The Resources Area also houses some interactive video programs such as *Your Life in Your Hands* (DeLiso, 1985) which has been

incorporated into the instructional format of the intermediate ESL classes. We are anticipating the development of a project that would link the Speech Communications Laboratory with trained media experts in the Speech Department who are able to create interactive video materials specifically designed for non-native students in an urban American environment.

### Professional Staff

In terms of staff support, the Title III federal grant—which was the major source of funding during the laboratory start-up period—provided for an Activities Director during the 1985-1986 academic year.

The responsibilities of the Activities Director were as follows: 1) developing speech screening materials and procedures; 2) training ESL and SEDS faculty in the interpretation of speech screening results for placement and diagnostic purposes; and, 3) guiding faculty in the pedagogical applications of audio, video, and computer systems in the laboratory.

In addition to the Activities Director, there is presently a full-time laboratory technician on site to monitor students and supervise the facility.

The laboratory technician is responsible for scheduling classes, tutorials, and speech screenings at the laboratory; assisting faculty in the assessment of students' progress in the laboratory throughout the semester; individualizing software and textual materials for students in tutorials; and helping students use and interpret the Visi-Pitch materials. Additionally, the laboratory technician helps faculty develop ESL and SEDS video and computer programs as needed.

Two part-time student assistants help the laboratory technician maintain the security of the equipment and materials in the laboratory and assist in clerical work as well.

## Future Projects

In addition to the development of worksheets and software programs for the Visi-Pitch system, we hope to adapt currently-used audio programs—like *Clear Speech* (Gilbert, 1984)—as input to the Visi-Pitch system. We hope to have completed several interactive dictation programs for use with the IBM XT. Our goal here is to develop an audio interactive program with enough branching capacity to differentiate among common types of anticipated errors in listening comprehension.

Finally, we are exploring the possibility of linking up the Resources Area with current computer-based projects in visible speech (e.g., Pickover, 1984-85) for possible applications in ESL/SESD settings.

Since its inception in 1847, Baruch College (as part of the City University of New York) has been committed to offering quality higher educational opportunities to students who might otherwise be denied access to a college or university education.

Like many other public colleges in America's urban centers, Baruch's students are becoming increasingly "majority-minority," with a growing number of students coming from second language or dialectal backgrounds which make a college education more difficult to achieve.

The Speech Communications Laboratory was created to help identify students from language backgrounds other than standard English more efficiently and speed up the transition between non-credit ESL/SESD courses and credit courses in the college curriculum.

The Speech Laboratory enables the Speech Department to supplement classroom instruction in ESL and SEDS courses with concentrated exposure to and practice in speaking, listening, and communicating—all essential to

success in any academic or professional environment.

The Speech Communications Laboratory at Baruch College has been on-line since August 1986, and the feedback we have gotten from faculty and students has been enthusiastic. With the development of in-house audio, video, and computer materials, we hope to make the laboratory an integral part of the Baruch College ESL and SEDS programs.

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## Author's Notes

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