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HOW DO WE BREAK THE LOCKSTEP. VARIATIONS IN CLASS SIZE AS APPLIED TO LANGUAGE TEACHING.

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A MULTI-FACETED SCHEME FOR LANGUAGE INSTRUCTION PROPOSES (1) LINGUISTIC AND CULTURAL CONTRASTIVE ANALYSIS, (2) AUTO-TUTORIAL ACQUISITION OF MOTOR SKILLS, AND (3) TEACHER-GUIDED USE OF LANGUAGE IN A SIMULATED NATURAL CONTEXT. THE ADMINISTRATIVE PROBLEMS INVOLVED IN ADJUSTING TO THIS NEW FUNCTION OF FOREIGN LANGUAGE TEACHING WERE STUDIED FOR THREE YEARS IN A MULTIPLE CREDIT FRENCH COURSE. A DISCUSSION OF THE ADJUSTMENTS COVERS REDUCTION IN CLASS SIZE, USE OF THE LANGUAGE LABORATORY AS A TEACHING MACHINE, AVAILABILITY OF ADEQUATE SELF-INSTRUCTIONAL MATERIAL, AND GRANTING OF CREDIT FOR ACHIEVEMENT AND NOT FOR SEMESTER HOURS. DESPITE FAVORABLE STUDENT PERFORMANCE, ADOPTION OF THE MULTIPLE CREDIT FRENCH COURSE DEPENDS ON EVIDENCE THAT THERE IS (1) MAINTENANCE OF THE NORMAL STUDENT RETENTION PATTERN, (2) AVAILABILITY OF GRADUATE TEACHING ASSOCIATES, AND (3) COMPATIBILITY OF THE MULTIPLE CREDIT FRENCH COURSE WITH HIGHER-LEVEL COURSES. THIS ARTICLE APPEARED IN "AUDIOVISUAL INSTRUCTION," VOLUME 7, NUMBER 9, NOVEMBER 1962, PAGES 630-634. (AF)

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How Do

We Break the Lockstep?

Variations in Class Size As Applied to Language Teaching

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The author is associate professor in the Department of French and Italian, Indiana University. The experimental program he describes here is conducted pursuant to a research contract with the Language Development Section, United States Office of Education (Implementation and Evaluation of a Multiple-Credit Intensive Audio-Lingual Approach in Elementary French, Title VI, NDEA, 9498 Valdman).

FOREIGN LANGUAGE INSTRUCTION has been characterized in the last few years by dynamic and far-sweeping changes in many areas: theory, materials, technology, etc. As in all other fields of human endeavor, technical innovations are fast outstripping adjustments in the institutional framework and, given the heavy burden of tradition that the teaching of the more commonly taught languages must bear, there is the risk of total incongruence between current administrative practices and traditional views of the teaching function on the one hand, and New Key attitudes, tools, and objectives on the other.

Multiple Teacher Function

Historically, New Key materials and techniques are derived from various continuations of the war-time ASTP programs, notably the FSI (Foreign Service Institute, Department of State) and the Army Language School (Monterey) programs. At the Foreign Service Institute, for instance, administrative policy—class size, course objectives, and number of contact hours—is shaped by those who devise teaching materials and establish instructional procedures: classes are small, ranging from three to six students; the contact is intensive, 30 hours weekly of formal class contact plus additional work in the language laboratory; the training period varies according to the aptitude and background of the student and the linguistic distance between native and target language. An important feature of the FSI

method is the concept of team teaching: responsibility for the progress of individual classes is entrusted to linguistic analysts who handle all formal explication, but the bulk of the actual contact is assumed by specially trained native speakers with no previous pedagogical experience.

The program of the Cornell University Division of Modern Languages constitutes the most notable adaptation of the ASTP format to regular academic curricula. The signal feature of the program is the variation of class size which accompanies specialization of teaching function: students meet two hours weekly in large groups of about 50 for grammatical analysis conducted by a trained linguist generally of professorial rank; three hours weekly in a review "laboratory" section of 20 students where American graduate students supervise the imitation of taped native models; and three hours weekly in a drill section of ten with a native speaker who presents new material, corrects pronunciation, and directs drill and conversation.

But the Cornell program still failed to free FL instruction from the traditional organizational framework: the division of the subject matter in terms of semesters (it must be noted that language requirements, however, were defined in terms of demonstrated proficiency rather than endurance); the rigorous course outlines which keep all students in lockstep progress and fail to provide for individual variations in linguistic aptitude, motivation, and background; and the definition of instructional time in terms of instructor contact hours. Recent and anticipated developments in electro-mechanical devices, the expansion of language laboratory installations, and the advent of the new field of programmed instruction make it imperative to experiment with more flexible administrative procedures and organizational frameworks. Patterns radically different from the present one-teacher-one-class-room system are called for to permit instruction on a near-tutorial basis where each

student is permitted to progress at his own optimum pace.

It has been suggested (Gaarder) that the sole irreplaceable function of the FL teacher is elicitation of "graded, guided experiences in the natural use of the new tongue" and that all other tasks presently assumed by the teacher—initial presentation of material, explanation, drill, constant review, and testing—can be relegated to properly programmed electro-mechanical devices. Several research teams, notably those of Morton and Sapon, are developing self-instructional programs for audio-lingual FL skills and perfecting associated electronic equipment (see Hayes *et al.* for a report of these projects). The immediate utilitarian objectives of government-sponsored intensive courses and the reaction against the word-and-letter-oriented analytical bias of the grammar-translation method have led proponents of the New Key, and particularly its latter-day advocates, to interpret FL instruction purely in terms of the acquisition of verbal skills. But, as Mortimer Graves suggests, in the education of the man of the second half of the twentieth century, FL instruction has more transcending value:

The educational purpose of studying this first foreign language is not primarily the mere acquisition of some useful control over it . . . but the extension of his [the student's] language sophistication beyond the bounds of his own language and the mastery of techniques by which this kind of transfer can be made.

Formal point-by-point contrast between the structure and the cultural setting of the target and native languages must find its place in FL instruction if the latter is to remain within the liberal arts and humanistic traditions. We propose, therefore, a multi-faceted scheme for FL instruction comprising at least three distinct components: (1) linguistic and cultural contrastive analysis and general introduction to language as a social and formal phenomenon, (2) auto-tutorial acquisition of motor skills, and (3) teacher-guided use of language in a simulated natural context. This new interpretation of the FL teaching function necessitates numerous adaptive administrative changes, some of which will shatter existing molds as well as rigorous experimentation to determine, for instance, the optimum division of contact hours between the three components, optimum class-size and physical facilities for each of the components, and the relative weight to be given to the skill and intellectual aspects of FL instruction at each educational level.

Multiple Credit French

Under the provisions of a research contract with the U. S. Office of Education, we began to study for a period of three years, starting in September 1961, the various problems involved in adjusting the FL instructional policies of a large university to one particular type of multi-component FL program. The key problem was the implementation of a system of grade and credit award which freed the student from conventional lock-step progress and made possible a true self-pacing course; the solution lay in a drastic reduction of class size and the corollary use of the language laboratory as

a teaching machine. An experimental course—Multiple Credit French 101, 102, 203—equivalent to the first three semesters of traditional French introductory courses, i.e., 15 semester hours of credit, was instituted. Credit is awarded on the basis of objectively determined achievement rather than the successful completion of a stated number of semesters: a student may receive from zero to 15 semester-hours of credit in the course of a semester and complete the course in from one to six or seven semesters although, hopefully, the majority of students will fulfill the requirements in three semesters; the only restriction is that, for simplicity of bookkeeping, credit is granted only at the end of a semester and in blocks of five credits. Grades range from A to C; students who fail to attain certain minimum scores in achievement examinations at the end of the semester or fail to complete stipulated units of material receive an incomplete (I). In the course of the following semester, these students merely continue where they left off; only students who fail to complete the course receive a failing grade.

Students enroll for a minimum of ten hours of instructional contact weekly; they are also encouraged to invest an additional five hours on the grounds that a university student should devote at least three hours of class time and/or outside preparation for every hour of anticipated semester-hours of credit. Eight of the ten assigned hours are spent in auto-tutorial activities, one in bi-weekly Display Sessions attended by three students on the average, and one in lecture sections grouping all the members of an experimental class (30 to 60 students). The following chart shows a typical student weekly roster:

	M	T	W	Th	F
9:30	Lab.	Lab.	Lab.	Lecture	Lab.
10:20					
1:30					
1:55	Display		Display		
2:40	Lab.	Lab.	Lab.	Lab.	Lab.

Traditional introductory courses meet in groups of 20 to 25 students, five hours weekly, and two additional hours of language laboratory attendance are required.

Auto-Tutorial Component

The successful use of the language laboratory as a teaching machine depends on the availability of an adequate self-instructional program. Since no set of programmed materials for Spoken French was available when Multiple Credit French was instituted, we were forced to devise our own. The program we employ (see Belasco and Valdman for partial description) presents the fundamental phonological and grammatical features of Spoken French, broken down into a graduated series of minimal steps and accompanied by culturally congruent dialogues and narrative material; later units

contain a program which trains the student to spell on the basis of phonological and grammatical cues and reading selections which provide information on key aspects of French culture.

Students report in groups of 30 to a language laboratory with 35 positions which are equipped with dual-track machines and activated head-sets and which are hooked up to a master console in two-way intercommunication. Tapes containing the recorded program are available on a library system and students select individually any part of the program they desire. At their position, armed with a work-book, they listen to the program, vocalize as directed by the speakers on the tape, and receive immediate reinforcement in the form of echo or confirmation responses; they also automatically record their own responses which they may compare with the native model if they so desire.

Progress through an individual unit is paced by a series of self-tests. Depending on his score on each self-test, the student is either directed to proceed to the following section or is detoured to an alternate review sequence. As soon as the student feels he has assimilated the material contained in a unit he is administered a *Unit Test*, scored by his Display Session instructor; subsequently, the student has the opportunity to discuss his errors with the instructor who may assign specific review work if necessary. Auto-tutorial activities are monitored by specially trained laboratory assistants whose primary function is to note and evaluate students' accuracy of response to program directions, relative activity, and efficiency of work habits. They also attend to mechanical problems and record periodic random selections of student response.

Display Session

Primary instructor-student and student-student interaction takes place in small groups of two to four students, meeting twice weekly for two 25-minute sessions. Initially, students are assigned to Display Sessions on the basis of performance in a prognostic language aptitude battery (chiefly the Carroll-Sapon test) but there is occasional reshuffling in the beginning to ensure homogeneity of student groupings. The Display Session, as the label suggests, gives the student an opportunity to *use* in near-natural and congruent context the linguistic structures *assimilated* in the auto-tutorial sessions.

Display Sessions are staffed by graduate teaching associates who, hopefully, possess near-native fluency and accuracy but are not native speakers of French and who, optimally, have had previous acquaintance with the broader fundamentals of general linguistics and a knowledge of the structure of spoken French, particularly as it applies to the teaching of that language to American speakers.

It is generally assumed that a total control of the contrastive material of a language and fair imitation of secondary phonic features are acceptable minimum prerequisites for FL teaching at the elementary level, and that grammatical patterns and vocabulary can be acquired as one goes along. One year of experience with our multi-component scheme suggests, on the



contrary, that the reverse priority of skills is required. Pronunciation inaccuracies on the part of Display Session instructors are undesirable not because the student who has intensive exposure to native models in the language laboratory risks to be contaminated, but because they slow up the instructor's rhythm of phonation. French conversation being a private form of war, it requires spontaneous and rapid-fire reactions among interlocutors, and, in this context, a two-second silence can seem an eternity.

If the instructor is to involve the students in some sort of conversational activity and bring them to "behave" the language as they speak, he must produce sentences at a rapid rate that demands automaticity of generation. Unless the instructor has previously acquired the ability to generate grammatically correct and stylistically congruent sentences and only these sentences—and this represents a high level of achievement indeed—he will provide incorrect models for student analogies and *teach* "Franglish," a language spoken in many of our French classrooms, rather than *elicit* the genuine French taught by the auto-tutor.

In the elaboration of audio-lingual methods, we have come to remember belatedly that parroting basic sentences and performing mechanical pattern drill is not communication, i.e., the natural use of language in an authentic cultural context. But skillful elicitation of authentic conversation without straying from the confines of known patterns or succumbing to the temptation to explicate or drill is the mark of the experienced and gifted FL teacher and precisely what the novice lacks. Therefore, an important task in the implementation of our multi-component course is the systematic description of successful eliciting techniques and constant in-service training for our teaching associates, many of whom have no previous teaching experience. In addition to a two-week orientation session prior to the start of the academic year, there are weekly staff meetings and mutual observation between the teaching associates and more experienced full-time staff members who are ultimately responsible for the elaboration of uniform eliciting procedures.

Lectures

The remaining one hour is devoted to formal discussion of linguistic structure, culture, and civilization in a lecture session attended by a group of 30 to 60 students. While grammar and culture are presented inductively through dialogues, drills, and narrative material, we believe, as we stated above, that the acquisition of objective attitudes toward language, training in the systematic observation of linguistic facts, and

a formal introduction to French culture in the anthropological sense are legitimate by-products of a basic FL course. Because of the self-pacing nature of the other components of the course, students show a wide range of proficiency and knowledge of French structure and culture, and it often becomes difficult for the lecturer to maintain the interest of both extreme segments of the group. Some of the data imparted by this component of the course can be presented better through a self-instructional program using a workbook as the principal presentation device, but since our aims are primarily to inculcate *attitudes*, the teacher must remain the indispensable live partner. A reduction of lecture groups to about 30 students would make possible some differentiation and ensure true two-way communication between the class and the lecturer. Were Multiple Credit French generally adopted, the total student population would range upward of 500. Fast, slow, and middling students could be easily accommodated within lecture sessions of variable size, and total homogeneity of student groupings would result.

Evaluation and Tentative Results

The ultimate generalized adoption of the Multiple Credit Program depends on establishing, in the course of an experimental period of three years, convincing evidence that: (1) the normal student retention pattern is maintained; (2) it can employ the type of personnel generally available at the university level (graduate teaching associates) and does not require any substantial staff increase; (3) it is compatible with higher-level courses; i.e., in addition to superior achievement in speaking and oral comprehension, Multiple Credit students must demonstrate reading, writing, and translation ability fairly comparable to that of students enrolled in corresponding traditional courses.

It was feared that the novelty of the organizational structure of the course compounded by its emphasis on audio-lingual skills would affect adversely student morale and result in an inordinately high defection rate. At Indiana University 68 percent of F101 students re-enroll in F102 the following semester: the retention rate of the Multiple Credit program was 69 percent as compared with the 61 percent rate of the control group. It is also significant that eight of the 11 students in the experimental group who received an "incomplete" re-enrolled in the Multiple Credit course, but of the 26 control group students who received grades of D, F, or I, only ten continued to study French.

While the Multiple Credit program requires an increase in teaching associates—the teaching commodity most easily available to university FL departments and of lowest per capita cost—it reduces the proportion of more expensive and scarce full-time staff affected to introductory courses. In the traditional program, teaching associates assume a teaching load of five hours weekly and are expected to devote at least as many hours to class preparation, examinations, and counselling; in the Multiple Credit program, teaching associates are relieved of most administrative burdens and therefore can carry increased contact loads of seven

hours. A Multiple Credit group of 60 students requires at most two contact hours or 1/12 of a full-time staff member for lecturing duties and perhaps an equal number of contact hours for discharging increased administrative duties. If we take into account the fact that one third of traditional introductory courses are handled by full-time staff, that most of the responsibilities of a staff member of senior professorial rank lie in the coordination and supervision of traditional introductory courses, and that considerable savings in instructional costs may be realized if many students can complete elementary work in fewer than three semesters, we can predict with confidence that the Multiple Credit Program will prove economically viable, i.e., raise instructional costs by not more than 25 percent.

Performance Ratings

How does the performance of the Multiple Credit group compare with that of traditional sections selected under similar conditions and with comparable ranges in linguistic aptitude and IQ? Control students scored somewhat higher in two outside objective tests which measure skills not easily definable but which may be labeled grammar-translation-reading (*ETS Listening Comprehension* and *ETS Cooperative French Elementary*). A locally prepared oral comprehension and speaking test was administered to the experimental and control groups and scored by a jury consisting of three traditional instructors for every one member of the Multiple Credit team; experimental students performed considerably better in all areas—comprehension, pronunciation control, manipulation of a limited set of grammatical patterns, and verbalization from auditory and visual stimuli. Indeed, a jury of specialists of French phonetics were unable to discriminate consistently between Multiple Credit and fourth-year students on the basis of pronunciation features alone!

Freed from rigid course schedules and relieved from tasks that taped native models, machines, and specialists of French linguistics can do more effectively, how does the teacher react to his new role? Although our teaching associates are subjected to constant observation and constructive criticism, they feel more confident and self-reliant than in their previous traditional role as sole master of a class; more important still, they derive greater satisfaction from the more effective audio-lingual training the course permits and the more personal teacher-student relationship of the Display Session. There could be no greater tribute than that paid by one of our former assistants, considered the outstanding teaching associate in the traditional program prior to her volunteering for the Multiple Credit program. When offered a part-time teaching position in a notable woman's college, she refused because: "I wouldn't want to teach French except the Multiple Credit way!"

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