Teaching Spanish in a Typographic/Electronic Culture

撤去课堂使用教科书或忽略计算机应用的决定是一个不明智的决定。学生们被从每天接触到的图文世界中抽离出来，这剥夺了他们获取知识最舒适的方式。图文和视觉图像可以成为语言教学的无价之宝，只要它们被适当地用于理解和产生口语标准语言。通过书面和口语练习来记忆结构将被扩展。材料应是可接受并与学生的同龄人相关，但不要有陈旧或偏见的内容。一旦引导的对话开始，应鼓励肢体语言，让学生在课堂上使用手势和面部表情，并允许一定程度的运动。打印和计算机辅助教学作为通往口语表现的桥梁不是捷径，而是代表了在现有学术世界中，对更多学生来说取得更好成绩的最佳机会，它代表了成功的机会。
Teaching Spanish in a Typographic/Electronic Culture

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The prominence of the textbook in the foreign language classroom has changed radically from era to era, being the center of language activities during the heyday of the grammar and translation methods of the early 1800s, retreating during later vogues such as the so-called natural or direct methods, reappearing for most of the twentieth century, only to retreat again during the audeo-lingual years of the 1960s. At the present time the textbook is squarely back on student desks, to be kept closed during certain pattern-drill and conversational activities, but generally kept open during grammatical explanations, many dialog activities, and more difficult exercises. No teacher can fail to notice that his students perform very differently when their books are open than when they are closed. An open book turns the classroom into a collection of individual readers who feel little sense of conversational community. It is difficult (often impossible) for another student or the teacher to get one of these individuals to pay attention to any visual or verbal stimuli. On the other hand, an open book seems to promote better association between the sounds and the spelling of the language, even though the printed script often leads to unacceptable substitution of sounds from the students' native tongue. An open book also speeds up the class, eliminating many of the silences, forgotten words, and grammatical mistakes produced by weakly-motivated and orally-unreceptive students. The resulting language is unfortunately disconnected from human emotion and rather incorrectly intoned. Either way, some students are left feeling dissatisfied.
The situation just described suggests a series of trade-offs which the school system, the language department, or the teacher must carefully weigh in the light of student attitudes, institutional standards, and curricular objectives. More importantly, it suggests a serious gulf between conviction and theory, on the one hand, and actual practice on the other. Most teachers feel guilty or even angry about their students' dependency on written charts and cues, but they realize that the class does not proceed as well without them. This study is an attempt to suggest why this state of affairs has become almost "inevitable" at this point in time. It involves a careful look at some recent linguistic, literary, and computer-capacity theories involving the differences between oral culture and chirographic (writing) culture, between speech and writing, between writing and print, and between a reliance on printed materials and a mushrooming use of microcomputers. Its underlying idea is a belief that today's student is deeply involved and bombarded with the need to process printed words and signs, that a removal or a closing of the language textbook is bound to create considerable disorientation and insecurity in an otherwise highly chirographic and computer-oriented academic setting. Its implied message to the teacher is that, although the "oral/aural" techniques of two decades back on the whole may have produced more flexible speakers than we are producing now, it may not be easy to reincorporate its emphasis on sound. The technology of our day has gone too far in undercutting the very "reality" of pure orality. What is "real" for today's student is quite logically—and at least for now—what is printed or what can be printed-out. It is not only that today's textbooks depend and make students depend on written language (ironically, with a theoretical eye to "communicative competency"), but that they are an inevitable reflection of the commitment to print, artificial language, and even artificial intelligence
which characterizes our developing lives.

There is a curious statistic about all of the thousands of languages spoken throughout human history: only about 106 have produced a body of writing. Of the approximately 3000 languages spoken today, only 78 have a literature.² What mankind has referred to as the phenomenon of language has always had—at least in most places, and at least up until now—a decidedly oral nature. However, these formidable statistics do not paint an entirely accurate picture, since they say nothing about the richness or accuracy of the various oral vs. written languages. For example, the "grapholect" (the established, written form) of standard English has a recorded vocabulary of at least a million and a half words, while a simple oral dialect will have an abundance of only a few thousand words.³ The spread and importance of writing is even more apparent among the peoples of the world. In fact, as Ong has asserted, "Today primary oral culture in the strict sense hardly exists, since every culture knows of writing and has some experience of its effects" (Orality, p. 11). "Where grapholects exist, 'correct' grammar and usage are popularly interpreted as the grammar and usage of the grapholect itself to the exclusion of the grammar and usage of other dialects. ..." While all dialects of a language may be declared equal in the sense that none has a grammar intrinsically more perfected than that of the others, "It is bad pedagogy to insist that because there is nothing 'wrong' with other dialects, it makes no difference whether or not speakers ... learn the grapholect, which has resources of a totally different order of magnitude" (Ong, Orality, pp. 107-08). No other dialect, for example, has anything approaching the resources of standard, written Spanish. This point has always been made clear by the great writer-philologists (Unamuno, Ortega, Alonso, Lain Entralgo) who—while they marveled at dialectical abundances in portions of their own and others' works—
nevertheless continually saw the triumph of such dialect forms as both a potential isolator from and an impoverishing of the infinite grapholect. Given the infinite superiority of the standard forms (both spoken and written), perhaps we should question the almost obligatory inclusion in Spanish textbooks during the past twenty years of several token chapters acquainting the student with vocabulary and expressions representative of the dialects of principal Hispanic groups within the United States: Cubans, Puerto Ricans, and Chicanos. I have—to cite one case—a good Chicano friend, justifiably proud of his culture and language, who spends nine months a year teaching Chicano students in Texas how to achieve "standard" Spanish, the only dialect which will allow these students to be employed in firms doing business internationally or with other Hispanic groups within the United States.

The first important influence of writing upon orality was the Greek science of rhetoric: the art of public speaking as codified in written treatises. This rhetoric "for centuries . . . remained unreflectively pretty much the paradigm of all discourse . . .", oral as well as written. "Thus writing from the beginning did not reduce orality but enhanced it, making it possible to organize the 'principles' or constituents of oratory into a scientific 'art', a sequentially ordered body of explanation that showed how and why oratory achieved and could be made to achieve its various specific effects" (Ong, Orality, p. 9). Yet the salutary contribution of writing was not without trade-offs. Writing introduced precision and nuance and abstraction, but it also made inroads on the psychological qualities of pure sound. As Ong states, "Though words are grounded in oral speech, writing tyrannically locks them into a visual field forever. A literate person asked to think of the word 'nevertheless' will normally (and I strongly suspect always) have some image, at least vague, of the spelled-out word and be quite unable to think of the
word . . . for, let us say 60 seconds without adverting to any lettering but only to the sound" (Ong, Orality, p. 12). We have all become addicted to viewing language as writing. When asked to deliver a talk, we jot down onto note cards the "real" words we would verbally impart, just in case the talismen should be necessary to get us through the ordeal. Professors go one step further, writing out their whole speech and rather apologetically calling it a "paper." Newscasters and politicians use a teleprompter since "to disassociate words from writing is psychologically threatening, for literates' sense of control of language is closely tied to visual control of language" (Ong, Orality, p. 14).

The major importance of ancient Greek civilization may be that it marked the point in human history when already interiorized alphabetic literacy first clashed head-on with orality. We see an example of this in Plato, who condemned writing for its corruption of the mind through its mechanical processing of knowledge. This is the same Plato who condemned poetry for its residual orality which had to be overcome if his own closely reasoned, literate philosophy were to be developed. Lengthy chains of argumentation are impossible without an exact memory of previous premises and conclusions. Nonliterary cultures do not possess the capacity for verbatim memorization. Then how do persons living in non-writing cultures ever manage to remember for future use the word patterns or thoughts they have laboriously worked out in their heads? In Ong's words:

The only answer is: Think memorable thoughts. In a primary oral culture, to solve effectively the problem of retaining and retrieving carefully articulated thought, you have to do your thinking in mnemonic patterns, shaped for ready oral recurrence. Your thought must come into
Franz

being in heavily rhythmic, balanced patterns, in repetitions or antitheses, in alliterations and assonances, in epithetic and other formulary expressions, ... in proverbs which are constantly heard by everyone so that they come to mind readily and which themselves are patterned for retention and ready to recall. ...

(Orality, p. 34)

All of this is quite different from the memorization of an unseen dialog in an elementary Spanish class. While a built-in psychological or semi-narrative progression may aid in committing the dialog to memory, none of the other mnemonics built into preliterate lore are present in the modern language program dialog. Should it surprise us that the pre-reading memorization of dialogs in bygone years proved so difficult (even if useful)? I do not know of any current or even recent program which advocates such a method. In fact, I do not know of any program which even advocates memorization of the illustrative dialog, a situation which unfortunately seems to be carrying the sad memory of dialog memorization failures to absurd extremes. After all, the student can memorize the dialog quite well with the aid of a printed text. He can then move on to pattern and substitution drills which are inherently rich in mnemonics such as repetition, rhythm, and rhyme.

When the reader of a book loses his train of thought, he can easily glance back at the lines of text and regain his present context. Therefore, he may—and probably will—move forward rapidly over his page of linear words without worrying over the possibility of forgetting. But in oral discourse this backlooping is impossible since the oral utterance vanishes into thin air the moment it is spoken. Therefore, in oral discourse the mind must move...
far more slowly, keeping what has already been dealt with very close to the focus of attention. In order to keep attention focused on what has been said, oral peoples necessarily utilize a great deal of redundancy: a continual repetition of the same concept in slightly different words. I confess I have seldom encountered this powerful technique of redundancy put to use in commercially produced pedagogical materials. Perhaps this is a natural shying away from the abuses foisted on students during decades of McGuffey Readers. Whatever its origins, this unfortunate lacuna should be filled. I would like to point out, for possible further examination, two currently available samples of just how successfully redundancy can be used. The first is in the initial videocassette (Lesson 1) of the popular BBC Spanish series called Zarabanda. Here the two grammar presenters, Allison Skillbeck and Carlos Riera, point to various items on a table (café, azúcar, brandy, té) while both ask and answer an ingenious series of questions involving the same structures and words. The second example, this time a printed one, is found in a surprisingly venerable place: in the Graded Spanish Reader: Primera Etapa, 3rd edition (D.C. Heath, 1978), edited by Manuel Durán and Nelly Cortés Rivas. I would especially recommend pages 1-17 for their repetitive and rhythmic, Azorín-like introduction (and contrast) of verb forms and other vocabulary. In past years we have usually assumed that oral memorization in a non-writing culture achieved the same perfect degree of repetition which we find in an actor who has memorized the lines of his script. This notion is totally false. Oral peoples do not have anything near the phenomenal recall we romantically credit them with. By making a comparison between (a) genealogical and historical accounts preserved only in speech by oral cultures in what are today Ghana and Nigeria, and (b) the written records set down there forty and fifty years ago by British colonial officials, researchers have documented a great deal of reality-induced
forgetting. Older data, no longer meaningful in newer social and economic contexts, are automatically (i.e., semi-consciously) eliminated or transformed to serve current circumstances. Oral memorization is always "subject to variation from direct social pressures. Narrators narrate what audiences will call for or tolerate" (Ong, Orality, pp. 66-67). Today's memory is probably not inferior to that of yesteryear notwithstanding our insistence that today's students "can't remember anything." Yet we must give our students material to learn which falls within what "social pressures" will brand as patently real and allow students to "tolerate."

I am presently using a textbook which repeatedly asks students (of both sexes) to role-play women's parts. It perhaps will not be surprising that the male students' performance visibly deteriorates when asked to relinquish their accustomed role. The same text at one point prompts students to converse about activities of the student council. Being university students and tending to associate student councils with a high school mentality, these students magically cannot remember any vocabulary to take up a subject which they consider "inane." It is often a fact that textbooks introduce discussion topics long after most students have ceased to find them current. In recent years I, and I suspect many other teachers, have suffered through embarrassing silences while students try to manipulate sound structures to the tune of the Women's Movement, the Cuban Revolution, and signs of the zodiac. None of these seems real enough to prod the memory and vocal apparatus. Their unreality is only underscored by the attempt to treat them through simplistic, textbook-printed discussion questions: "¿Es usted un aries típico?", "¿Cree usted en el movimiento feminista?", "¿Qué tienen que hacer los cubanos para mejorar su situación?", "¿Le gusta una mujer alta o una mujer baja?"
Oral memory differs significantly from textual memory in that the former has a rich somatic component. (Contemporary jargon speaks of this as a "total physical response.") That is, the memorizer-reciter generally moves his hands and body in a way which both communicates the narrative and aids in recalling the sounds. Anyone who has observed traditional performers from Hawaii, Malaysia, or Indonesia has a grasp of the concept. It is the very reason why speech teachers try to convince their students that gestures are a "natural" act: they not only communicate to your audience, they help you recall what you wanted to say. So what is the situation in most (particularly university) language classrooms? Precisely the opposite. Despite increased, often hurried attempts at role-playing, students still generally sit in confining straight rows while balancing study materials on a narrow desk. Both hands are rendered immobile. Only the teacher freely walks about and "clowns" to make a point. Is it any wonder that only the teacher strings together enough appropriate words?

In his now vintage (1928) studies of the Iliad and the Odyssey, Milman Parry discovered that the Homeric oral poet tended not so much to memorize a lineal progression of utterances, but an incredibly large collection of phrases, from which he extracted metrically and thematically suited variants to fit the demands of his audience and his song. "Homer," who as we all know was blind, obviously could not write and therefore symbolically represented the recorded "oral tradition." Learning to read and write cripples an oral poet, introducing into his mind the notion of a text as something absolutely in control of his narrative. An oral poet—though today we tend to fictionalize him as a figure of prodigious memory—never sings the same way twice. He learns from listening throughout many years to other bards who over and over again "rhapsodie" the same standard formulas in conjunction with the same standard
Franz

themes. The materials in the bard's memory are no more than "a float of themes and formulas out of which all stories are variously built" (Ong, Orality, p. 60). When modern oral poets in Yugoslavia and Ghana were recorded years apart, it was discovered that their songs had changed appreciably over even a moderate span of time. The oral poet, therefore, does not, strictly speaking, "memorize." Ironically, however, he admires literacy and superstitiously believes that a literate person can probably rhapsodize even better than the oral person. As Ong observes, "This is precisely what literates cannot do, or can do only with difficulty" (Orality, p. 61).

Experiments with oral peoples in South Africa have shown that their more talented members can repeat a poem from memorization with slightly better than sixty percent accuracy. After pointing to this evidence, Ong appropriately comments: "Sixty percent accuracy would earn a pretty low mark in schoolroom recitation . . ." (Orality, p. 62). Yet we usually ask our students to recall phrases with far better than sixty percent accuracy. The Spanish program presently in use at my university comes equipped with taped dictations which ask the student to write words in precise juxtapositions which he has never encountered before. Likewise, it has taped (and not printed) paragraphs and dialogs followed by factual questions which the student is to attempt answering after only one listening. Many of its taped drills are not printed anywhere in the text, and the resultant inability to grasp the practiced patterns has obliged us to partially print up the content of the drills. (Fortunately, today's language labs are equipped to instantly repeat any previous utterance, so that some of this problem with dictation and drills can be ameliorated.) I could adduce many other examples even further from the norm, but the point is this: Why do we expect average students to manipulate almost purely oral materials in another tongue and to a high
degree of accuracy when trained experts cannot do it in their own language? Even allowing for the non-native speaker's less complicated syntactic storage (rather than semantic storage) of information, a nearly flawless repetition of sustained utterances involves skill of a high order.

As Ong again points out:

Even in cultures which know and depend on writing but retain a living contact with primitive orality ... ritual utterance itself is not typically verbatim. ... Christians celebrate the Eucharist as their central act of worship because of Jesus' directive. But the crucial words that Christians repeat as Jesus' words in fulfilling this directive (that is, the words 'This is my body ...; this is the cup of my blood ...') do not appear in the same way in any two places where they are cited. ... (Orality, p. 65)

The Japanese masters who chant from memory the ancient oral narrative, The Tale of the Heike—in an act of conscious memorization—do not escape unconscious mistakes. This in spite of the fact that the accompanying music tends to make the words more memorizable, as when we pick up a song through hearing it repeated on the radio. 8 If we are to faintly reach anything approaching these high (although clearly imperfect) standards, should we not also practice on something like "ritual utterances?" Why is it that so few teachers (and practically no university textbooks) utilize songs or poems? Someone (a professional) could even compose new songs or poems to help inculcate the very structures and words at hand. It seems that we should want to use every
mnemonic device, every reasonable somatic gesture we might have at our disposal.

The effects of writing and print are everywhere with us. They inhabit our speech and thoughts. "Persons who have interiorized writing not only write but also speak literately, which is to say that they organize... even their oral expression in thought patterns and verbal patterns that they would not know unless they could write" (Ong, *Orality*, pp. 56-57). Just witness a Presidential news conference. Even when the questions are unknown in advance, the respondent attempts to phrase his answers in such a way that they will prove worthy of print the next morning. Print enforces a standard of complexity that is difficult to measure up to, which is why so many extemporaneous attempts at oral profundity ultimately produce disappointing results. Today when a TV anchorman makes a "spontaneous" quip before signing off, we can be sure it has been written out and rehearsed. "Rate culture verbatim memorization is commonly done from a text, the memorizer returns as often as necessary to perfect and test verbal verbiety" (*Orality*, p. 57). To expect our own students to do so without a text to pull from beneath them all of the underpinnings upon which our present communication processes are based.

However, going back one step, it is patently unfair to say that "oral" people cannot think "logically." To a great extent, they apply reason in the same way that literates do. They well know, for example, that a hard push applied to a mobile object causes it to move. "What is true is that they cannot organize elaborate concatenations of causes in the analytic kind of linear sequences which can only be set up with the help of texts" (*Orality*, p. 57). This may tell us something about the failure of certain pedagogical methods which depend upon the ability to visualize language as a linear sequence, for
instance, the Spanish subjunctive tenses. Our students are usually taught that certain emotions (doubt, uncertainty, amazement) or modes of expression (attempts to influence behavior) which are located within the principal clause will subsequently cause the subjunctive to be used in adjoining dependent clauses. This may be fine if you can visualize sounds represented as letters and arranged in a straight line extending from left to right. I have noticed, however, that students who read poorly, or who repeatedly fail to establish agreements between subjects and predicate adjectives in oral sentences of the variety "Las estudiantes del grupo avanzado son venezolanas," cannot gain control of the subjunctive following this linearly dependent method. If you cannot visualize an utterance as a printed strip having a "left" side and a "right" side, then you cannot very well focus on the "left" side of the strip for a determiner of the verb (mode and tense) or the adjective (person and number) which immediately thereafter will need to be generated on the "right" side. The person with a wholistic, largely oral sense of language either must be made to visualize language as a text (a time-consuming and at times culturally-alienating process) or else be taught to manipulate words without recourse to the chirographically dependent notion of syntax. Sounds are an evanescent, continuous, present event. When they are gone, they are gone, and only the chirographic/typographic transformation of them into individualized units permits us to speak about them in terms of a sequence or order.

Writing and print are isolating, individualizing media. "Oral communication unites people in groups. Writing and reading are solitary activities that throw the psyche back on oneself. A teacher speaking to a class which he feels and which feels itself as a close-knit group, finds that if the class is asked to pick up its textbooks and read a given passage, the unity of the
Franz

The group vanishes as each person enters into his or her private world" (Orality, p. 69). However, once non-book-textualized speech begins again, the unity of the audience is reestablished. A language teacher instantly senses this if he compares student behavior during pattern practice or pronunciation drills, first with the textbooks closed, then with the books open. The same thing inevitably happens if students view a foreign language film which (unknown to the teacher) has come equipped with subtitles: the linear progression of words seduces the mind, annulling some of the sense of communal listening. The result is a greater attention to detail and a more intellectualized experience. Of course the ability to perceive the movie—or the pattern drills and their many connotative "meanings"—from multiple points of view, is simultaneously reduced. I work in a university setting outfitted with three language laboratories equipped with the latest in cassette recording devices, and a fourth laboratory equipped with microcomputers. Each room accommodates approximately thirty students. In spite of the fact that the earphones in the traditional lab impose a high degree of isolation and concentration, they do not begin to create the degree of self-centered study observable in the computer lab. The pace of response, the involvement, the requests for "help" made to the computer are all highly personal. All of which is rather nice for the students, but rather a frightening situation when one stops to think that this privileged isolation ends at the language laboratory door. To be of much use, concentration and control will have to be maintained in a world full of unwanted interference and without nearly so many visual cues. After sprouting wings in the rarified atmosphere of a university classroom and a computer lab, students are going to require an as yet unconceived weaning process to the outside world. All of which does not mean that the process will remain undeveloped, but that the present language-learning process some day will be
Written or printed words are not true words. The "real" word is the evanescent unit of sound produced by a speaker in order to represent something or action. Our complacency in considering written or printed words as true signs is due to the tendency of chirographic, typographic, and now electronic cultures to reduce all sensation to visual analogues. We tend to imagine everything reduced to symbols on a flat surface: a printed page, a clock face, a calendar (Orality, pp. 76-77). It should not surprise us that most students are far better prepared for taking an American History or Accounting exam than they are for entering into a guided conversation tomorrow morning with their Spanish professor. Almost all of their other coursework involves materials either already reduced or reducible (via note-taking) to flat surfaces. The new dominance of Computer Science courses in the curriculum, coupled with the drive to computerize aspects of many other disciplines, only accentuates this spatializing of experience. Of the one hundred students in my four most recent (1983-84) elementary Spanish classes, 25% have already taken at least one course in Computer Science, with another 25% intent on doing so before graduation. Unless unseen variables maintain the status quo, it would seem that future language teachers are going to be working with students whose concept of language is far more spatialized (typographically-oriented and computer-oriented) than are those we teach at present. The whole language consciousness of our students will be to some degree altered. We can either adjust our methods to accommodate the different intellectual and attitudinal make-up of our future (and even present) student body, or we can hold out against change and adhere to notions of language and the arts as bulwarks against depersonalized technology. If the latter, we will be on extremely shaky ground. Not only have writing and print already
transformed our communicative and mental functions beyond this mythical "natural" state, but demonstrably have freed us to develop language for more elevated "humanizing" ends: literature, mathematics, philosophy, and science.

I should like to explore some of the fundamental problems inherent in teaching languages amid the proliferating use of computers and the mushrooming exposure of students to computers with their reflex patterns of artificial intelligence. Computers, as we know, essentially reduce the intelligence process to a series of "rules" governing the processing of information. Human beings, on the other hand, are largely resistant to the notion that they solve problems by adherence to any formalized rules. When experts from diverse walks of life have been asked to state the rules which guide their decision-making, most are resolutely unable to do so, and up until now it has been impossible to prove that human intelligence adheres to any physics-like rules which might be stateable in isolation from the complex stimuli proceeding to the brain from the outer world. In the so-called computer "model" an external situation is internally defined in terms of the individual features of that perceived situation. On the other hand, in human mental activity "[total] situational understanding is PRIOR to aspect specification." 10

The concept of a "model" or "micro-world" in computer science presupposes an intrinsic relationship between myriads of these isolated, artificial models and the real, outside world. That is, in order for the models to have any predictive powers, the total of their parts must fairly represent the dynamic interplay of all relevant real-world conditions. That such "models" or "micro-worlds" can be manipulated in isolation from the forces which produce them in the real world, and that these manipulations can produce meaningful understanding of the world from which they have been so carefully isolated, is the great unproven assumption of so-called Artificial Intelligence (Dreyfus, pp. 8-14).
The problems inherent in such models are directly relevant to foreign language teaching, because in our case the models in question refer to no less than the interior duplication of living languages. I recently witnessed three of my colleagues destroy a computer program designed by another teacher for purposes of drilling and, where necessary, guiding the student in correct formation and placement of French indirect and direct object pronouns. Yet by means of asking the computer for "hints" and then following its "advice," the three were repeatedly able to get the machine's acceptance of "sentences" which were not only flawed, but patently ungrammatical. Clearly, as Meredith (p. 428) points out, not all language teachers share the aptitude to become programmers. Yet even allowing for the fact that my illustration involves an unproficient programmer, we must admit that the construction of even partial models which might be called "French," "German," or "Spanish" is a very difficult if not problematical business. In recent years the use of "micro-worlds"—together with their interiorized, symbolic descriptions of the real world—has continued to proliferate. Yet no combination of such "models" has so far succeeded in producing any "hint of a system with the flexibility of a six month old child" (Dreyfus, pp. 18-19). We do not understand much about the way in which the brain processes information, but there is some evidence to suggest that certain regions of the brain produce holographic encoding of real-world scenes, rather than creating and manipulating the types of formal "models" developed for digital computers (pp. 19-25).

No one who has worked with a computer as an aid in the teaching of foreign languages can be spared the impression that the "language" or "humanity" generated within is entirely artificial. The computer compares student responses with the "correct" answers which have been programmed into it. If it has been programmed well, the computer also will yield questions or problems which drill
the target grammar, point out errors, coax student self-correction, and re-teach forgotten rules—all of this in printed form. This is far more than any teacher can hope to do for all of his students as diverse individuals. To this extent the computer—like the traditional audio-language lab—is more durable and "personal" than a teacher. Here again, however, there is a trade-off. Not only is the computer poorly equipped to accept synonyms and syntactic variants, but it is a bad mimic of human personality. Its "conversational" quips and re-entry of problems are horrendously predictable after even forty minutes of practice. Additionally, poorly conceived programs take unreasonably long to "compute" a correct or incorrect answer, greatly reducing the number of items which may be practiced in a given time period. A good classroom teacher is far more efficient. However, the most negative aspect of Computer-Assisted Instruction (CAI) is its typographic format—conversely also its greatest strength.

As Ong has pointed out (Orality, p. 82), the phenomenon of writing is completely artificial. As opposed to the unconscious origins of speech, writing frequently is governed by consciously contrived rules. It distances us from direct contact with processes and feelings, permitting us to reflect on them in greater depth. People accustomed to print or computers have even greater difficulty in thinking of words as primarily oral. They think of them, not as sound events clearly delimited in time, but as "things" existing on a flat surface. Hence the need in a foreign language classroom—one which uses textbooks, and especially one making use of computers—to ultimately return the student to the world of sound once his need to "see" the forms has been satisfied. Language in the world is not necessarily flat and is not immune to syntactic and phonological variants, as is the language presently generated by language-teaching computer software.
"A present-day literate usually assumes that written records have more force than spoken words ..." (Ong, *Orality*, p. 96). The truth of this assertion is well-known to any teacher who has argued with a student over the "correctness" of an erroneous construction or rule appearing in a textbook. "Print encourages a sense of closure, a sense that what is found in a text has been finalized, has reached a state of completion. ..." The printed text is supposed to represent the words ... in definitive or 'final' form" (Orality, p. 132). Unfortunately, the "definitive" quality of the textbook also extends beyond grammar and spelling into the matter of pronunciation. The shape of the printed word, together with its student-substituted English phonological equivalents, often dictates a repeated mispronunciation of that word. It is not only that the native language interferes with the target language, but that print interferes with sound (which is why most students cannot intone or pronounce naturally while reading from a script in their own language). Written or printed sentences are radically isolated from the fuller context in which spoken sounds are generated. Written, printed, or computer-produced words are always a kind of "imitation of talking" (Orality, p. 102).

Computers greatly extend this saturation of our lives— and our classrooms—with the authority and artificiality of print. The sequential processing and spatializing of the word (i.e., the word becomes a "thing" to be shaped and processed at will, largely isolated from the stream of life always reforming the evanescent words/sounds of oral cultures) is raised to a new pitch by the computer. For the computer "maximizes the commitment of the word to space ..." (Orality, p. 136). Let us take a look at several concrete scenarios. In the first, a student is working with a computerized vocabulary drill and incorrectly spells a word. He will then keep rearranging
letters (I have seen this go on indefinitely, even after the machine supplies "hints") until he gets it right. In the second scene, the student is drilling Spanish irregular preterit tense verb forms. If he makes several mistakes, he may ask the computer for "help" and be given a hint. If the error persists, he may request a "review" and be given a diagram of the appropriate verb conjugation model. Finally, he will be given the correct answer. In the third scenario, the student is constructing whole sentences in conformity to a model. All of his errors will be highlighted for correction when the machine "computes" his response. He will then keep changing whole words or individual letters until he matches the model. In all of these situations the student is guided in "fiddling" with the language—first attacking one part, then another—until he produces a proper icon. However, this is not the way "real" language is formed. An oral utterance cannot be tinkered with by correcting an error at its "middle" and then at its "beginning." If one tries, he soon discovers that his listeners have no patience for hearing his painful rectifications. Once emitted, oral utterances cannot be recalled for adjustment. They properly have no individual segments such as we recognize in written sentences. Tinkering with an oral utterance or a computer-printed sentence further embroils one in another error, that of generating sounds or words and letters out of the totalizing sequence they necessarily must have to make any sense. Hubert Dreyfus and Anthony Oettinger have made this same criticism of computers themselves at their present stage of development:

"a person experiences the objects of the world as already interrelated and full of meaning. There is no justification for the assumption that we first experience isolated facts or snapshots of facts or momentary views of snapshots of isolated facts and
then give them significance. This is the point that contemporary philosophers such as Heidegger and Wittgenstein are trying to make. The burden of artificial intelligence [i.e., digital computers] is indeed its apparent need to proceed--in futility--from the atom to the whole and only then, if necessary, analyze it into atoms."

(In Dreyfus, xii-xiii)

These are the same criticisms made of yesteryear's textbooks, with their polix use of pronoun and verb charts which the student (in theory) was supposed to recall for insertion into the appropriate syntactical and contextual slots. The problem was that the choice of a verb form (imperfect or pret- erit, first person singular or plural) and the selection of an object pronoun (lo or la) depended on the "whole" of the sentence--or even of the paragraph--that the student was struggling to form in parts. Charts, like computer-produced sentences and "verb" tables can be apprehended from any point in their extension. Their frames of reference, much like Lévi-Strauss's binary grids of mythological content, are practically open-ended. Unfortunately, as Ong points out, these spatially arranged study aids are very far removed from the oral language process:

Charts, which range elements of thought not simply in one line of rank but simultaneously in horizontal and various criss-cross orders, represent a frame of thought even farther from oral noetic processes which such charts are supposed to represent. The extensive use of lists and particularly of charts so common in
our high technology culture is a result not simply of writing, but of deep interiorization of print.

(Orality, p. 101)

On the higher levels we have interiorized print so deeply that complex verbal icons have become surrogate human consultants. As one study of information flows in Latin America points out, "The digitalizing network produces a fusion of print, voice, and video, blurring the traditional distinction between the different means of communication." Little wonder that students generally like computerized instruction, just as they feel at home with textbooks containing ample charts detailing conjugation patterns, pronoun systems, and the like. Yet the use of verbal icons—whether in textbook charts or in computer images—does not necessarily lead to any fluency in oral language (coding or decoding) or proficiency in reading. Verb charts, vocabulary lists, and computer-generated practice frames give a deceptive illusion of "totality." But they are only tiny parts of a vigorous whole. Certain studies on computers (see Rada, pp. 12-17, 46-49, 102-03) like to say that industrialized societies have become information-oriented rather than performance-oriented. This is an exaggeration, since the ultimate "orientation" of knowledge is some imagined, perhaps distant, performance-oriented tasks. Nor are the studying of tables or the selection of computer-elicited word forms to be ends in themselves. They too often are! Like workbooks, they often give satisfaction for minuscule accomplishments which are difficult to fuse into any useful whole. Until microcomputers develop some of the capacities for "branching" and "interaction" present in mainframe systems, the maximum individualized program, capable of zeroing-in on every individual student's needs and confronting him with real-life conversational simulations, will be an unfulfilled ideal. Yet our incomplete perfection of these systems must not prevent
us from making use of the profitable learning tools we already have. Our present tools merely ask the student and teacher to be substantially their own guides as to what must be practiced.

Teaching Spanish while restricting classroom use of the textbook or ignoring application of the computer is a losing proposition. Withdrawn from typographic-video world which engages them more every day, students are deprived of their most comfortable means of knowledge acquisition. Typography and visual images can be an immeasurable aid in the teaching of languages provided they are subordinated to the student task of both understanding and producing "oral standard" utterances. The best way to instill correct models of such utterances seems to involve the memorization of written texts whose structures will be expanded through written and oral drills. Memorization is best effected through carefully-prepared materials rich in mnemonics (redundancy, repetition, rhythm). An increased recourse to songs, poems, and proverbs can aid in both modeling and vocabulary acquisition. The materials memorized (and later expanded through drills) should be both tolerable and relevant to the students' peer group or groups. Inane references to passing fads, sexual stereotypes, and soon-to-be obsolete news should be eliminated. Above all, materials must avoid imparting a North American hermeneutics in which other cultures are clumsily presented in terms of United States norms. (That, in spite of all tacit reforms, this is still the case is doubtless an outgrowth of our methodological insistence on comparing the structures of Spanish to those of English.) Not only Spanish American teaching assistants but also our more sensitive students recoil from work with such biased materials. Once guided conversation begins, the somatic component should be encouraged, with students not only being prodded into use of gesture and facial expression, but—where practicable—being permitted some movement.
about the classroom. The availability of a "conversation lab," free of confining, regimenting student desks, would be an immense psychological aid. Ultimately, print-oriented stimuli must be withdrawn to a degree approximating their presence in the outside world.

The process of using print and Computer-Assisted Instruction as a bridge to oral performance is not a short-cut, but a path to better achievement for more students, provided those students are already proficiently literate in their own language. I believe that it represents the best chance for success amid the print biases and time constraints present in our academic world.
Notes

1As I write these words, I note that others have been prompted to think in the same direction. See R. Alan Meredith, "Materials and Equipment: The New Generation," The Modern Language Journal, 67 (1983), 424-30, esp. p. 428. Hereafter, Meredith. To some extent it will be seen that I disagree with Meredith (p. 424) in my continued acceptance of dialog memorization and in the need for pattern drills. I also fall somewhat into his category of "testimonial" researchers. However, I wholeheartedly concur with his call for more "empirical" studies. The present article is designed to be both "theoretical" and "testimonial," while leaving the "empirical" to those more qualified to carry out work in this area.


in the same volume, p. 255.


9"More than any other single invention, writing has transformed human consciousness" (Ong, Orality, p. 78). It has initiated "what print and computers only continue, the reduction of dynamic sound to quiescent space, the separation of the word from the living present . . ." (p. 82).


11Clearly, I am not speaking here of simple verb drills or those teacher-programmed exercises demanding the production of sentences or the answering of questions in congruent response to a basic set of directions and a limited (unambiguous, single-faceted) concrete example.

A good, basic statement of the profound and still unrealized potentialities of CAI (particularly with regard to diagnostic testing) can be found in John L.D. Clark, "Language Testing: Past and Current Status--Directions for the Future," The Modern Language Journal, 67 (1983), esp. pp. 436-38. Clark, like Meredith, stresses the need for empirical studies to determine the optimum role of the teacher and the computer in distinct operations of the instructional process.