This monograph explicates the techniques for bilingual skills training of adults and out-of-school youth that were developed in the bilingual vocational training program at Bullard-Havens Regional Vocational-Technical School in Connecticut. The first chapter deals with the problem-posing and questioning technique known as "concientización," which was developed by Paulo Freire and which has been used extensively in bilingual programs throughout the world. It focuses on the learning processes of codification, decodification, and recodification. Discussed in the second chapter is the technique of "capacitación," which is a method for teaching visual English to vocational students that represents English word order rules in a manner that is systematized through question-words. Procedures are set forth for using tape and slide presentations and question-and-answer sessions based on the visual English method in bilingual vocational English classes. Concluding the monograph is an annotated list of selected references dealing with bilingual instruction for vocational students. (MN)
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BILINGUAL VOCATIONAL TRAINING
WITH
TRAINERS AND TRAINEES:
CONCEPTS AND APPLICATIONS

Dennis Sayers
May 1980
CONNCTICUT STATE BOARD OF EDUCATION

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Bilingual Vocational Training Programs are certainly an effective way to address one of the major concerns of the State Board of Education. Such training, designed for both teacher and student, seeks to assure equal educational opportunity for persons of all ages who seek the challenge available through wide-ranging vocational education programs.

The Comprehensive Plan for Elementary and Secondary Education confers continuing emphasis and importance on this issue, as demonstrated by the fact that equity is one of the four goals that the State Board of Education hopes to achieve over the next five years.

The Master Plan for Vocational and Career Education is also a document that addresses itself quite directly with equity. It is designed to ensure that all students can take advantage of school programs which can lead to rewarding and productive employment opportunities. The student who is limited in English proficiency has an especially critical need for such job-related skill training in school. By reaching these students through free and appropriate vocational programs, we can certainly provide a student with a chance for meaningful life-long opportunities. In the process, we are contributing to the economic strength of private enterprise by satisfying the need to maintain a skilled workforce.

This monograph reflects the training provided to teachers and students in programs sponsored by the State Department of Education over the past year. We look upon this publication as a valuable way in which to transmit some innovative techniques and approaches necessary for bilingual skills training for adults and out-of-school youth. We are hopeful that this monograph will also serve as an important contribution to the early literature in the field of Bilingual Vocational Training Programs.

Mark R. Shedd
Commissioner of Education
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INTRODUCTION

The primary focus of this study is a practical explication of techniques for bilingual skills training of adults and out-of-school youth which were developed in the Bilingual Vocational Training Program at Bullard-Havens Regional Vocational Technical School, to my knowledge the first public-funded bilingual training project in Connecticut, in which the writer served as Program Developer, Materials Development Specialist, Vocational English-as-a-Second Language (vESL) Instructor and Life Skills Instructor.

The author had been invited to coordinate skills and "classroom" training in this precedent-setting pilot project because of my earlier participation as Developer and Instructor of the Bilingual Component of the Bilingual Vocational Instructor Training Program at Central Connecticut State College in the summer of 1979. Saul Sibirsky, Bilingual Consultant for the Bureau of Vocational-Technical Schools, had contacted me in his extensive canvassing of available human and material resources in Connecticut to initiate a programmatic commitment in bilingual vocational human resources development that
would address the skills learning needs of Connecticut's Hispanics of limited English proficiency (LEP).

Two areas of skills training were offered -- Machine Shop and Nurse Aide -- and two models of coordination of skills training with "related" instruction (that is, math, vESL, blueprint reading for machinists, and Life Skills) were implemented. First, skills instruction and clinical practice by an English-speaking Nurse Aide trainer were supported through simultaneous interpretation as well as reinforcement of English language skills by a trained bilingual Nurse Aide assistant. Second, the efforts of an Hispanic bilingual Machine Operator trainer were backed up by the vESL instructor -- both through daily job-specific ESL classes in the shop and by participation of the vESL teacher in the machinist skills training itself -- as well as a trained bilingual Machine Operator assistant, again, interpreting instruction and encouraging trainees' simultaneous practice of language and skills training.

More specifically, examples given of bilingual training techniques will be drawn from the metal machining component for two reasons. First, since the Machine Operators' training employed both models -- integration of vocational English,
indeed, the direct participation of the VESL instructor in the bilingual skills training, and extensive support of a trained bilingual assistant -- needless repetition will be avoided. Secondly, bilingual metal machining training represents a long-overdue, welcome departure from training programs in trades areas usually offered to LEP Hispanics and especially women for low-paying gender-traditional occupations with little real chance for advancement.

BILINGUAL VOCATIONAL EDUCATION & THE BRIDGEPORT PROJECT

Bilingual vocational education is a programmatic educational movement that seeks to address the documented and legislatively recognized needs of LEP individuals for specific trades-area skills training. It is a result of years of community advocacy for programs which employ the bilingual vocational concept -- bilingual skills training with simultaneous job-specific English and related skills development -- as opposed to classroom-based "hands-off" pre-vocational programs.

Bilingual vocational skills training is a multi-faceted effort in human resources development. There have been exemplary teacher-training programs in bilingual vocational
methodology and materials as well as direct bilingual skills training programs. There have been efforts at a national level to define teaching competencies of bilingual skills trainers. There have been training institutes in Bilingual Vocational and vESL approaches to skills training for both administrators and practitioners.

Where does the Bridgeport project fit into this national effort to respond to the skills training needs of LEP persons from a variety of language backgrounds? The Bridgeport project was not in the strictest sense a bilingual vocational teacher training program, even through pre- and in-service skills development was provided for instructors and assistants. Nor was it merely a bilingual skills training program. The project may best be viewed as a competency-based training program for skills instructors as well as the Hispanic trainees involved. Indeed, what most distinguishes the Bridgeport project are the bilingual vocational approaches and tools which were developed as a result of an on-going process of concientización (generating awareness of the challenge) and capacitación (generating the appropriate tools to meet the challenge).
PART I -- CONCIENTIZACIÓN

Concientización is a problem-posing and questioning approach to education that focusses on the learning act in terms of codification, decodification and recodification processes. It is most frequently associated with the work of Paulo Freire, whose educational practice has been amply documented in Guinea-Bissau, Brazil, Chile, Mozambique and Angola. Freire's work in Guinea-Bissau is particularly significant for bilingual vocational education.

In Guinea-Bissau, there are two pressing educational needs: a wide-reaching literacy campaign in response to a 90% rate of illiteracy and skills training for speakers of the indigenous language, Creole, in this newly-independent republic where skills training had always been a privilege and entirely in Portuguese. Freire, in his "Letter to Adult Literacy Workers," writes of conscientización in a bilingual literacy and skills training campaign developed in collaboration with the party in power, the PAIGC.

In our country, the adult literacy programme is an effort to reach the point where cultural group leaders and adults learning literacy succeed together in reading and writing their own reality, in thinking critically about their world and in taking their place with a lucid awareness in the changing reality.
When the President speaks of 'reading and writing reality' he is referring to the need to understand the reality surrounding us not as something static and congealed to which we simply have to adjust, but as something moving, in a state of change. When he speaks of 'thinking critically about the world,' he is referring to the need we all feel to understand the deep-lying reasons behind the facts and phenomena of reality. When he speaks of 'writing reality, taking one's place in it in full awareness,' he is alluding to the action taken by men and women in changing the surrounding reality.

The process of conscientización can lead to more effective engagement in productive and community life through what might be called "informed action." Freire continues:

This action can change the natural world through work, by clearing the land, sowing, growing and harvesting, or by making bricks from clay and shoes from leather, or else by making a fallen tree-trunk into wood, the wood into planks, and the planks into a boat from which to catch fish to sell and eat. It can also change the other world, the social, political and cultural world. All this is 'reading' reality, which also implies the link between literacy, production, health and concrete action programmes in the communities.

Typically in educational approaches which involve conscientización, the learning project's reality is "mediated with challenge" in the form of a visualized codification, say, a drawing or a slide which represents an important concern that learners have expressed in their daily lives and/or in the learning project. This codification is then "decodified" through discussion into its key aspects and a
process of intensive problem-posing and detailed questioning. Recodification implies the isolation of key learning project needs, the identification of available human and material resources, and the characterization of techniques and tools appropriate to the “challenges” the group had encountered in the decodification process.

Not surprisingly, the actual educational practice of learning projects which utilize conscientización tends to emphasize visualization, problem-posing, questioning skills, and human resources development. Bridgeport was no exception in this respect.

It should be noted at the outset that the process of conscientización in the Bridgeport project was not “pure” in the strictest sense. The task of elaborating tools and techniques deemed relevant by the staff to bilingual skills training often devolved on the Program Developer, whereas this should have most properly been a group, or group-delegated effort. Similarly, the occupational areas had been pre-determined by the vocational school administration, and not by the Hispanic trainees. And yet -- through the efforts of the Program Developer with the trainers and with the trainees,
as a result of 1) the Life Skills class and the methods used in the other classes and the shop/clinical practice, 2) activities organized by trainees outside of class, and 3) bilingual-bicultural counselling — a significant group commitment to the success of the project was achieved. Perhaps the trainees themselves invented the most accurate term — we made ourselves "familia," or family, capable of understanding, confronting, and overcoming the personal, linguistic, and institutional barriers to effective bilingual skills training for employment.

CODIFICATION

Codifications were drawn up for trainers and trainees which reflected concerns determined individually or in group discussion during the interviewing and pre-service phases for trainers and the referral and orientation process for trainees. These codifications were brief, often visualized or summarized presentations of information relevant to the key concerns of the skills training project. For the vocational instructors, their bilingual assistants and the related instructional staff, codifications included

1. a summary of documentation of the need for bilingual vocational skills training in Connecticut.
2. bilingual vocational project descriptions
3. a precis of key legislation and funding sources relevant to bilingual skills training.
4. visualizations of learning theory germane to bilingual vocational skills training and vocational ESL.
5. lists of relevant bilingual vocational teaching competencies grouped by teaching competency areas, and
6. visualizations of the bilingual vocational "learning act" used in Guinea-Bissau.

Codifications for Hispanic trainees included:
1. summaries of job competencies and visualizations of common job tasks and roles,
2. brief explications of bilingual vocational approaches and tools resulting from the instructional staff concientización,
3. survival skills and self-advocacy skills in visualized format, and
4. the visualizations of the "learning act" previously mentioned.

DECODIFICATION & RECODIFICATION

The basic question raised by both bilingual vocational trainers and the trainees were "what are we about in a bilingual vocational skills training project and what is to be done here and now?"
Discussions of issues raised by the documented need for bilingual skills training in Connecticut and in Bridgeport led to a concern for the elaboration of a model of bilingual human resources development of both trainers and trainees in the Bridgeport project that could serve as a guide in future projects in Bridgeport and in other cities as well.

Consideration of the bilingual vocational project descriptions in Connecticut and elsewhere helped trainers realize the variety of programmatic response to the need for bilingual skills training, including bilingual career education, bilingual pre-vocational exploratory programs, bilingual vocational teacher training programs, as well as bilingual skills training programs like the Bridgeport project.

The materials on legislation and funding sources that impact of bilingual vocational skills training were viewed both as a kind of documentary history of advocacy for skills training relevant to the linguistically "different" and as achievements and resources to be defended for the survival of such programs.

Discussions of the codification of learning studies drawn from Mary Galvan's work which indicated the highest
skills retention when active involvement is co-ordinated with speaking about that action led to a felt need for bilingual skills training techniques which complement job-specific English skills development, techniques which in turn foster more effective vocational skills acquisition.

For bilingual vocational trainers, the lists of teacher competencies grouped by prerequisites and major competency areas, which were adapted from those developed by Kirschner & Associates, generated discussion particularly around those competency statements unique to bilingual skills training. Since most staff had had often lengthy experience as skills trainers and related instructors for skills training -- indeed, one bilingual skills instructor had been certified as a vocational instructor in Connecticut -- it is not surprising that attention focussed on defining that special element that would make the project truly bilingual.

For example, under "prerequisites", discussion centered on the competency statement "Identify bilingualism and the process of becoming bilingual," which generated awareness to the need to expand the common conception of a bilingual
educator as a teacher who happens to speak two languages to
the more comprehensive view of a skills instructor who is part
of a team trained in bilingual methods that encourage the
"process of becoming bilingual."

Later, in the competency area "Planning for Instruction,"
the statements

1. Identify English language structures and vocabulary needed for trade,
2. Develop vocabulary lists in both languages of common terms,
3. Sequence English structures essential to perform a skill,
4. Plan for co-ordination of both skills and English language instruction, and
5. Develop overall teaching/learning strategies that integrate classroom, workshop/lab, and vESL

in particular resulted in a felt need for a curriculum development mechanism which could aid trainers in identifying English language structures and vocabulary key to successful performance in each trade area. Ideally this mechanism, if properly designed, should lend itself to direct skills training which would integrate both skills and job-specific English instruction. Just how this might be accomplished was first elicited by another competency statement in this particular competency area: "Use feedback from students to develop
Instructional activities. Vocational trainers and related instructors alike were agreed that questioning was a most natural, direct approach to generate relevant feedback to our developing instructional program. Thus, the mechanism for isolating, sequencing, teaching and integrating language structures and vocabulary with vocational skills should preferably be based in questioning techniques as a natural, yet formalized feedback system.

Under the competency area “Conducting Instruction,” discussion again focused on the unique demands posed by bilingual skills instruction as well as those particular methods which favor vocational English acquisition. The competency statements include:

- Introduce concepts / processes in both languages,
- Present concept / process with A / V materials in both languages,
- Summarize presentation of concept / process in both languages, and
- Guide student activities through job sheets in both languages,

heightened consciousness of what bilingual methods and material resources were necessary to “bilingualize” the local vocational skills lesson plan -- introduction.
preparation (motivation), presentation and practice. Moreover, the competency statements

Determine when students do not understand instruction in English, and

Translate a word immediately when it isn't understood in English.

drew attention to the crucial role of the bilingual assistant in aiding comprehension for the Hispanic LEP trainee particularly of cognitive instruction involving knowledge and concepts. On the other hand, these statements:

Correct students' English only if the mistake affects comprehension,

Use practice and drill to reinforce students' vocational English, and

Present English structures and vocabulary in the occupational context.

served to highlight the need for a vocational ESL methodology that would lend itself to appropriate error correction and thus facilitate language practice in the occupational context.

All the competency statements under "Preparing Students to Get, Find and Keep a Job"

Develop a bicultural curriculum to teach survival skills and self-advocacy.
Assist students in making realistic career plans,
Explain how to hold a job and gain advancement,
Explain what will be expected in a specific job environment,
Assist students in preparing resumes,
Assist students in preparing for interviews with employers,
Assist students in applying for employment, and
Encourage employers to hire LEP persons who successfully complete the training

were deemed essential by the bilingual vocational staff for the success of the skills learning project.

Trainees as well assessed their own "Life Skills" development needs and made the process of concientizacion more profound by elaborating another key Life Skill -- the development within the group of an informal support network, la familia, to aid each participant in meeting the daily challenges, from transportation and child care to assistance in handling delicate, personal difficulties.

The importance of this concept of familia for the success of the Bridgeport project cannot be overstressed; indeed, one of the key lessons that may be generalized to other
bilingual skills training programs is that the existence or the breakdown of this informal support network can make or break a participant's chances for success in training and on the job.

The visualization of the "bilingual learning act" used in Guinea-Bissau by Freire's team of literacy workers
affected trainees and trainers alike with two concerns: to maintain a constructively critical attitude towards the "learning act" process, and to harness the consciousness thus achieved to develop and perfect teaching / learning techniques which effectively enhance the bilingual skills learning act.

The second stage of this process, the capacitación resulting from conscientización, drew into play all the resources and experiences of the writer as Program Developer, Materials Development Specialist, and vESL / Life Skills Instructor, as well as those of the rest of the instructional staff and the trainees, in the development of effective bilingual vocational techniques and tools. Three of these approaches in particular are of considerable utility for bilingual skills training programs, namely

1. Vocational VISUAL ENGLISH c 1979 Sayers
2. Tell & Ask Commands in the Bilingual Vocational Shop / Lab
3. Bilingual Vocational Slide / Tape Presentations

These techniques will be detailed in the second part of study, CAPACITACION.
PART II -- CAPACITACIÓN

Vocational VISUAL ENGLISH

In Part I, a process of conscientización was outlined which specified, in part, the need for training in a "mechanism for isolating, sequencing, teaching and integrating language structures and vocabulary with vocational skills that should preferably be based in questioning techniques as a natural, yet formalized feedback system." Capacitación in vocational VISUAL ENGLISH sought to respond to this felt need.

VISUAL ENGLISH -- WHAT IT IS

VISUAL ENGLISH is a representation of English word-order rules which is systematized through question-words (who, what, where, how long, how often, how, when, why and what for, as well as whose ________, which ________, how much / many and what kind of ________). VISUAL ENGLISH is designed to represent all possible language modes, including commands, sentences and questions. A close consideration of a series of examples can provide the best introduction to the VISUAL ENGLISH system of representation.
In the examples which follow, the appropriate question-words are blackened in to show which questions are being "answered."
In example #1, a command is expressed in this manner: "Insert" tells WHAT ACTION, "the tool bit" indicates WHAT or "what to put in the tool holder," and "in the tool holder" tells WHERE or "where to put the tool bit."
Example #2 is a question which may be thus visualized: "What" is a question-word from WHAT ACTION, "are" is a question-word helper from WHAT ACTION, "you" tells WHO, AND "doing" asks WHAT ACTION. In the sentence #3 "I" indicates WHO, "am inserting" tells WHAT ACTION, and so on.

In #4, "Where" is the question-word and "did" is the question-word helper from WHAT ACTION (note how the question-word helper helps tell the time of the action in a question), "she" tells us WHO, and "the tool bit" indicates WHAT. The sentence #5 gives the answer to the question #4 in this manner: "She" tells WHO, "inserted" tells WHAT ACTION, "it" is a substitute for...
the previously-mentioned "tool bit" (note that in VISUAL ENGLISH an instructor can show what a pronoun is, instead of teaching an irrelevant grammar term), while "in the tool holder" tells WHERE.

In #6 and #7, the passive voice -- so important in vocational language, yet usually not taught to beginners because of "complexity" -- is easily represented in VISUAL ENGLISH. "What" is the question-word, and "was done" asks WHAT ACTION, while in #7, "The tool bit" tells WHAT, "was inserted" indicates WHAT ACTION was done, and "in the tool holder" shows WHERE the tool bit was inserted.
In #8 and #9, the capability of VISUAL ENGLISH to represent even questions about modifiers is demonstrated. In a word, all question forms -- major constituent (Who, What, Where, How: ..., When, Why and What for), verbal (What did somebody/thing do? What is somebody/thing doing? What was done?), and modifier, both subject (What kind of bit was inserted in the tool holder?) and object (Which micrometer did you use to measure the diameter?) -- can be represented through VISUAL ENGLISH.

Besides commands, statements and questions in simple word order, VISUAL ENGLISH can represent more complex language patterns in visual terms.
<table>
<thead>
<tr>
<th>WHAT</th>
<th>WHERE</th>
<th>WHEN</th>
<th>HOW</th>
<th>WHO</th>
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</table>

**Steps to Set Up Tool Holder Correctly:**
1. **Align Tool Holder** with the axis.
2. **Clamp** the tool holder securely.
3. **Set up** the lathe.

**Accidents are avoided if:***

- <**Tools**>
- <**Which**>
- <**How much**>
- <**What kind of**>
In #1, "how you set up the lathe correctly" indicates WHAT to tell a trainee. In the second example, "after you align the tool bit with the axis" tells WHEN to clamp the tool holder. And in the third example, "how accidents are prevented in the machine shop" asks WHAT you know. Thus, there is no need to use grammar "jargon" like object or adverbial clauses since question-words are a much more natural system of representation.

With such a broad scope of representation, VISUAL ENGLISH is most useful in rendering the multi-faceted language demands of any occupational area. But the question remains: what is there about VISUAL ENGLISH that makes it especially suited for bilingual vocational skills training?

VISUAL ENGLISH & BILINGUAL VOCATIONAL EDUCATION

To my knowledge, the earliest and most far-reaching application of the visualization system utilized by VISUAL ENGLISH was in the language education of deaf children. Edith Fitzgerald used question-words in a blackboard chart for English sentence patterns, and
revisions of her approach were eventually introduced in most educational institutions for the deaf in North America. VISUAL ENGLISH is designed for hearing ESL learners from any language background, but it is particularly relevant to bilingual vocational training because it is based on Case Grammar, because it is a complete pedagogical grammar, and because it lends itself to conscientización.

CASE GRAMMAR

Case Grammar was first developed by Charles Fillmore in response to what he felt were the semantic inadequacies of the then-current theory of grammar, Transformational Grammar. Fillmore didn't agree that humans communicate by generating statements through applying transformational rules to basic sentence patterns -- computers perhaps, but not humans. Rather, he developed the idea of case concepts or cases. To Fillmore, cases are "a set of universal, presumably innate, concepts which identify certain types of judgments human beings are capable of making about events that are going on around them, judgments about such matters as who did it, who it happened to, and
what got changed." Case, as defined by Fillmore and others, is anything but a recent notion. Indeed, Case Grammar and VISUAL ENGLISH both treat English as though it were a case language like Russian among modern languages and Latin among classical, in which semantic roles are signalled by question-words, word-order and inflections, and in which verbs may be grouped by the "cases" they govern or the "questions" they answer.

One of the most important premises of bilingual education is what I call the "efficiency principle": instead of reteaching and forcing a student to relearn concepts already developed and functional in the first language/culture, help the learner become aware of these concepts and transfer them to the second language/culture. Because these case concepts are "universal, presumably innate" semantic roles which are signalled in every language by question-words, VISUAL ENGLISH encourages the transfer of already functional semantic role concepts and questioning skills to a second language.

Let us examine more closely these semantic role concepts. In Case Grammar, they include Agent, or
someone or something which causes an action or process named by the verb; Instrumental, or the force or object that plays a role in bringing about the action or process named by the verb; Experiencer, or someone affected by the action or process named by the verb; Factitive, or the object resulting from the action or process named by the verb; Locative, or the spatial orientation of the action or process named by the verb; and Objective -- the most neutral of the semantic roles -- or anything whose role in the action or process depends on the meaning of the verb itself. Now VISUAL ENGLISH uses none of this terminology; rather it focuses on question-words and questioning techniques, allowing the vocational context to clarify semantic roles.

As important as semantic role concepts are to first and second language learning, these concepts are dependent on the action, process or state named by the verb. In Case Grammar, verbs may be grouped by the cases they "govern" and in VISUAL ENGLISH, actions may be grouped by the questions they "answer" or the questions that could be "asked" about them. Of course, one may ask WHEN, or
WHERE, or HOW, or WHY of any action, however, in Case Grammar and in VISUAL ENGLISH emphasis is placed on essential information without which the action would have no communicative value. For example, the actions WORK, SLOW-DOWN, and BREAK-DOWN can answer these kinds of questions or can have these questions asked about them:

The actions NEED, PRACTICE, OPEN, FINISH, MAKE, FIX, USE, TRY, and LEARN can answer these questions or can have these questions asked about them:
The actions *GO, COME, REACH, STAND, and STAY* can answer these questions or can have these questions asked:

By contrast, the actions *MOVE, POINT, PUT* and *PICK UP* can answer these questions or have these questions asked:

The actions *DESCRIBE, EXPLAIN* and *REPEAT* can only pattern in this manner:
However, some actions can pattern in two alternate ways. For example, GIVE, READ, SHOW, TELL, BRING and TEACH can pattern in two word orders; first,

and alternatively,
Thus, VISUAL ENGLISH emphasizes actions, processes, and states named by verbs and the kind of information given or needed for communication to take place. And it does so visually, without resorting to esoteric grammatical jargon, by building on what learners already know in their first language, therefore encouraging "the process of becoming bilingual."

A COMPLETE PEDAGOGICAL GRAMMAR

VISUAL ENGLISH is a pedagogical grammar, or teaching/learning grammar designed to speed second language acquisition.

The importance of a complete pedagogical grammar for bilingual vocational education cannot be over-emphasized. VISUAL ENGLISH responds to the language learning needs of LEP youth and adults because it is a cognitively-oriented approach; it respects the ability of youth and adults to understand and therefore practice more efficiently a language learning task. VISUAL ENGLISH also lends itself to presentation of vocational information without "editing" or over-simplifying; notice the "level" of language employed in this task analysis for an operation on the lathe.
<table>
<thead>
<tr>
<th>WHAT</th>
<th>ACTION</th>
<th>WHO</th>
<th>WHAT</th>
<th>WHERE</th>
<th>HOW</th>
<th>WHY</th>
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</thead>
<tbody>
<tr>
<td>SET UP</td>
<td>THE LATHE</td>
<td>(FOR WORK BETWEEN CENTERS)</td>
<td>INSERT</td>
<td>THE TOOL BIT</td>
<td>IN THE TOOL HOLDER.</td>
<td></td>
</tr>
<tr>
<td>PUT</td>
<td>THE TOOL HOLDER</td>
<td>IN THE TOOL POST.</td>
<td>MOVE</td>
<td>THE CARRIAGE</td>
<td>TOWARD A CENTER POINT.</td>
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<tr>
<td>ADJUST</td>
<td>THE TOOL BIT</td>
<td>TO THE HEIGHT</td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>CLAMP</td>
<td>THE TOOL HOLDER</td>
<td>IN THE TOOL POST.</td>
<td>SLIDE</td>
<td>THE TAILSTOCK</td>
<td>INTO POSITION.</td>
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<tr>
<td>CLAMP</td>
<td>THE TAILSTOCK</td>
<td>SECURELY.</td>
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</tbody>
</table>

**DID YOU SET UP THE LATHE FOR WORK BETWEEN CENTERS?**

**YES.**

**HOW DO YOU SET UP THE LATHE?**

**FOLLOW STEPS 1 - 8.**
Thus, VISUAL ENGLISH can aid vocational teachers in the presentation of essential information -- without over-simplification -- while at the same time giving useful insights into language structure and meaning in order to help along more effective language learning. It may be used by everyone in the training project -- language teachers, language learners, and non-linguistically trained instructional staff in the shop and related areas -- to encourage a consistent approach to language practice and error correction throughout the project.

In its use of a wide variety of sensory modes, VISUAL ENGLISH responds to two critical factors which affect bilingual vocational skills acquisition.

First, each vocational area specifies different language requirements. A machine operator will read relatively little beyond process sheets, and will rely primarily on oral-aural sensory modes -- spoken language. A secretary trainee, on the other hand, will need to develop many language skills in a variety of sensory modes. VISUAL ENGLISH may be adapted to a number of different formats: charts, overhead transparencies, card readers, tapes, etc., with or without written language. A trainee need not develop a skill, say, reading,
If that skill has little functional utility on the job.

Second, everyone learns language differently, and job-specific English is no exception. Some learners rely on visual learning, others on oral-aural learning, while still others depend on kinesthetic -- manipulative -- learning. In VISUAL ENGLISH, individualized language learning needs may be addressed. For example, the visual-oral sensory modes are called into play as trainees drill the steps of an operation presented in written form in VISUAL ENGLISH, or, if less reliance on written language is desired for some trainees, they may build sentences using question-word formulas, like WHAT ACTION plus WHAT plus WHERE equals Secure the work in the three-jaw chuck, or Insert the tool bit in the tool holder. Kinesthetic learning is invoked when the vESL teacher writes each step of a sequenced skill operation on a card, and then cuts up each step into words. Trainees may then re-order each step and sequence the entire operation on the VISUAL ENGLISH chart. Or kinesthetic - oral learning is primary when the vESL instructor and trainees "talk" through the VISUAL ENGLISH chart by touching the appropriate question-words as they commands, sentences and questions.
**CONCIERTIZACIÓN**

**VISUAL ENGLISH** is based on questioning and stresses the kinds of questions we can ask about any action going on around us. It may thus be readily integrated into bilingual skills training projects that employ the techniques of concientización.

Indeed, a key passage in Freire's *Letters to Guinea-Bissau*, which, like **VISUAL ENGLISH**, makes extensive use of question words, underscores the critical importance of questioning in defining the role that learning may play in human resources-development efforts like bilingual skills training:

> What to learn, how to learn, to what end to learn, in favor of what and of whom to learn -- and it follows, against what and against whom to learn -- these are not intellectual but theoretical-practical questions that are posed by education in terms of the learning act. They are fundamental questions, in dynamic relation to others involving the very act of learning, of its possibility, of its legitimacy, of its objectives and the achievements of that act, of its agents, of its methods, and of its content.

Vocational **VISUAL ENGLISH**, which itself developed from a process of concientización, is a methodological attempt to respond to just these "fundamental questions" that Freire has distinguished.
The codification from Mary Galvan's summary of learning retention studies generated a great deal of focused creative thinking about teaching/learning approaches relevant to bilingual skills training. The codification noted, in part, that "we are told that we retain approximately 10% of what we read, 20% of what we hear, 30% of what we see and 50% of what we see and hear. This kind of learning is passive, receptive learning." Instructional staff felt that if seeing while hearing is the most effective of the receptive learning modes, then the possibility of audio-visual learning strategies should be explored.

But the codification went further, and so did the process of conscientización. "By contrast, we are told that we remember approximately 70% of what we say and 90% of what we say and do." Clearly, we reasoned, the best way to amplify the effectiveness of AV strategies would be to take for their content that which we "say and do," the active learning modes. A search of available AV resources by the Program Developer and the consistent help of Gerald Potkay, Media Center Supervisor at the vocational school, resulted in the elaboration of bilingual slide / tape presentations.
presentations which, like VISUAL ENGLISH, is an "overall teaching/learning strategy that integrates classroom, workshop and vESL."

Slide / tape showing themselves most readily to bilingual skills training and are unique among student-centered, goal-directed activities in providing a satisfying group project with measurable job-specific language learning and at the same time keeping a sharp focus on vocational skills development.

Essential equipment includes a Kodak Instamatic camera, a slide projector, and a tape recorder; materials are 30 minute cassette tapes, Kodachrome 126 film, and processing (pre-paid mailers or $2 per roll to process commercially). An optional but highly desirable piece of equipment was available to the Bridgeport project and can usually be found in media centers or curriculum labs: the Kodak VISUALMAKER, essentially an Instamatic camera with two copy stands; so that 3 types of "shots" can be made (regular, 8" X 8" close-ups, and 4" X 4" extreme close-ups). The project also had at its disposal a projector-synchronized tape recorder, making possible a "movie" effect with slides changing automatically from pulses superimposed on the cassette recording.

I'll illustrate the basic steps in producing a bilingual
slide / tape show with a presentation designed and executed by the machine operator trainees: Las Partes del Torno / The Parts of the Lathe.

First, planning is the key to a successful slide / tape presentation -- it must be thorough and should never be hurried. The instructor's role is simply the facilitating of decision-taking by the students. Discussion of the topic and major purposes of the presentation were conducted in the trainees' first language, Spanish; after all, there would be plenty of time to practice job-specific English when the tapescript and tape were produced. Trainees chose to present the four major assemblies of the engine lathe with these purposes in mind: to learn and use in the making of the show the job-specific English essential to understand the engine lathe; to present the information bilingually, so that the show might be used by future trainees; and to show both men and women in the role of machine operator.

Each image had to be planned on a separate card that was divided into VISUAL and AUDIO parts. Decisions were taken with regard to visuals which included the type of shot (regular, close-up, extreme close-up), camera angle (level, from below eye-level, from above eye-level, bird's eye view), and point-of-view (subjective over-the-shoulder or objective face-on).
Trainees chose regular, objective shots when explaining the four major assemblies of the lathe, and close-up subjective shots to increase the sense of viewer "involvement" in more detailed images. AUDIO decisions revolved around when and how to use Spanish and English. The trainees chose to present Spanish first and English second with each shot to aid future LEP Hispanic trainees in acquiring information in Spanish while encouraging the learning of vocational English.

Second, the visuals were reproduced, with trainees executing the shots that had been planned earlier.

Third, the audio tape was produced, and provided a wealth of opportunity for motivated language practice with a focus on vocational skills. Two products were required: a bilingual tapescript to sequence the visuals with, and a bilingual tape. The machinists delegated the various tasks involved among themselves according to the principle of who would benefit most from each activity: translating the Spanish, choosing the best translations, writing the Spanish-English tapescript, and recording the bilingual tape. Much "learning without realizing it" took place -- understood sentences in English were repeated literally hundreds of times.

Fourth, when the visuals were processed and the tape had
been recorded trainees were ready to synchronize the images with the tape, using the tapescript as a guide. When the trainees had finished and the presentation was finally viewed by the group, there occurred a magic and -- for bilingual skills training -- an essential moment of conscientización: They saw both a student-designed and -executed project stressing vocational skills and themselves in the role they were training for, that of competent, bilingual machine operators.
The conscientización process which grew out of discussion of the codification drawn from Galvan's summary of learning retention studies resulted in another naturalistic technique for linking skills and job-specific language training: TELL & ASK COMMANDS.

Instructional staff in the Bridgeport project were particularly interested in learning studies as a possible clue to effective approaches to bilingual skills training. The Galvan codification clearly emphasized the preferability of linking visual and aural learning for better "receptive" retention; yet it also pointed to the "ideal" mode of learning retention, which brings together telling and doing. Uniting these two activities seemed particularly relevant for bilingual skills training.

An attempt was made to isolate the communicative roles which trainers and trainees assume in the bilingual skills learning act, in terms of the agentive form of simple communicative actions. The trainers and related
staff were most often showers, tellers, observers, askers, and answerers, while trainees were frequently observers, doers, askers and answerers. It was at this point that the elaboration of TELL & ASK COMMANDS began.

Consideration of one application of this approach reveals its distinguishing characteristics. The skills trainer and the vESL instructor may designate one trainee as teller, another as doer/answerer, a third as asker and the remainder as answerers. The bilingual skills trainer, or the skills trainer with the bilingual assistant serving as interpreter, then shows and tells each step of a key operation. The vESL teacher then gives the teller a TELL COMMAND: "Tell Maria to make a facing cut." The teller responds, "Maria, make a facing cut." And the doer executes that step of the operation, while answering the vESL teacher's question "What are you doing now, Maria?" with "I'm making a facing cut." The vESL instructor may next give the asker an ASK COMMAND: "Ask Maria what she did." The asker forms the question, with guidance if necessary, "What did you do, Maria?" and gets the answer "I made a facing cut." Or the vESL teacher may ask any of the other trainees "What did she do just now?" to practice
another language pattern and a skills step.

And that's the point, in a word: linking language and skills development. Each step of a key vocational skill is definitely demonstrated and practiced, but, at the same time, highly motivated, in-context practice in assuming key communicative roles and in producing job-specific language is provided as well.

TELL & ASK COMMANDS as an approach to bilingual skills training facilitates human resources development in several crucial areas. As this technique is, in the last analysis, based on what the skills trainer says about a skill s/he is demonstrating, this original telling process can serve as a basis for isolating job-specific language around sequenced skill steps. The corpus of language thus generated can in turn be utilized in bilingual curriculum development and in integrating ESL training with skills training.

Secondly, by focusing on the bilingual skills training act in terms of communicative roles, TELL & ASK COMMANDS encourage naturalistic, contextual practice of such key job-specific communication skills as following and giving direction, listening and observing skills, as well as asking and answering questions.
Thirdly, TELL & ASK COMMANDS stimulate and help to integrate coherently a variety of team-teaching/learning strategies. The model given previously involved the bilingual skills trainer or the skills trainer with bilingual assistant, the vESL teacher and the trainees. But the approach easily lends itself to sensible adaptations of instruction in dyads, triads and other groupings. With experience, the skills trainer and/or the bilingual assistant can encourage both skills and language practice even when the vESL teacher isn’t present. Similarly, the vESL trainer intervenes more appropriately using TELL & ASK COMMANDS to promote job language acquisition while vocational skills are being practiced in the shop or laboratory.

Fourth, with questioning a central feature of TELL & ASK COMMANDS, regular feedback is guaranteed as to trainees’ grasp of the bilingual skills training process while trainees are encouraged to assert themselves in this process when comprehension breaks down and clarification is needed.
Finally, the **TELL & ASK COMMAND** strategy clarifies training roles in the pre-service phase, and serves as an "on-the-spot" modelling technique in the in-service phase of bilingual training of trainers. A team approach to vocational skills development is stressed, because the communication between bilingual skills training and vocational language learning is established and maintained through the implementation of **TELL & ASK COMMANDS**.
References

1. Those with an interest in a particular occupational area—or language which has been addressed through programs with full or partial federal funding should request a cumulative listing of bilingual skills training and bilingual instructor training programs from:

   Demonstration Branch, US Office of Education
   Bureau of Occupational and Adult Education—
   Room 5026, ROB-3 Building
   400 Maryland Avenue, SW,
   Washington, D.C. 20202

   An exemplary bilingual vocational teacher training program, indeed, a pioneering effort will not be thus listed, since it has operated without federal funding: The Fitchburg State College Bilingual Vocational Teacher Training Program, under the direction of Alan Hurwitz, began in the fall of 1977, and has provided much innovation in this crucial area. Information is available from Mr. Hurwitz, c/o Institute for Governmental Service, U. Mass. Downtown Center, Boston, Massachusetts 02125.

3 This paper's focus is on bilingual vocational training techniques and tools, and is an effort towards contributing to the rather scant literature on practical approaches. The bicultural aspect referred to here is crucial, but much more has been written about this area, and I defer to the available information.

4 Mary Galvan, Bilingual Vocational Instructor Training, EPD Center, Austin, Texas, p. 8.

5 These codifications were simplified English versions of an early draft of the Kirschner & Associates monograph on competencies which I prepared for use in the Central Connecticut State College Bilingual Vocational Instructor Training Program. The most recent draft of this study is A Monograph for Bilingual Vocational Instructor Competencies (draft), Washington, D.C. March 1980.
Most available English language printed material in vocational areas is written at a grammatical level much too complex for LEP trainees, and often requires reading skills not needed on the job.

Learning by Living and Doing, p. 25.

