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ABSTRACT

The instructional guide for the Cutting Edge workplace literacy program, a cooperative project of El Paso Community College (Texas) and Levi Strauss and Company, is an expanded version of one appendix the project handbook. It describes and provides an instructional model for the three-part, job-specific, video-based program of English as a Second Language (ESL) designed for garment industry workers of limited English proficiency. It begins with an overview of the preparation of and rationale for the curriculum, then outlines a specific instructional model in five stages: initial language input; language input with reading; learning activity; language experience; and application activity. Notes on classroom implementation are then provided, including suggestions concerning input and output, language and content, treatment of grammar, comprehension and comprehensibility, interlanguage and error correction, and use of translation. Specific implementation procedures are then suggested. A lesson plan for each of the three levels, including reading selection, is appended. (MSE) (Adjunct ERIC Clearinghouse on Literacy Education)

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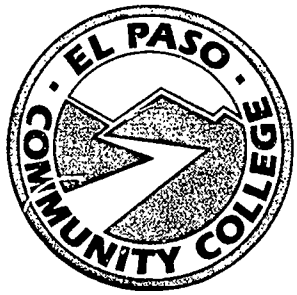

THE CUTTING EDGE: WORKPLACE ENGLISH
Instructional Guide

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INTRODUCTION

We have attempted to develop a program that addresses the needs of adult language learners in the workplace, and provides instructors with a flexible framework on which to build a site specific English curriculum. These lessons were originally developed to provide ESL literacy instruction to limited-English proficient garment industry workers, predominantly Spanish speaking, in seven Levi Strauss & Co. production plants in El Paso, Texas.

We designed the curriculum entitled **The Cutting Edge: Workplace English** for use in a variety of settings. Our intent was to develop generic materials that could be applied in other locations for workers of any language background, and who work for any garment manufacturer. We have found that it is also appropriate to use with native English speakers who are not familiar with print with some adaptations in the teaching strategies.

We chose to organize the curriculum by theme so that lessons could be selected that are most relevant to the business and student needs. Students can participate in the selection of lessons which an instructor can sequence based on the business and student priority. Some of these theme topics include **Health and Safety, The Production Process, Mobility on the Job**, and **The Changing Workplace**. Lessons can be used from our curriculum and interspersed with lessons that revolve around themes from daily life and society. Each lesson is flexible so that activities can be added to enhance the topic. If needed, the lesson can be covered in two or more class periods.

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CURRICULUM OVERVIEW

This curriculum for **The Cutting Edge: Workplace English** includes the lesson plans, readings, and accompanying videotapes. The videos, lesson plans, and readings address twenty themes that are relevant to the garment industry. These themes are listed on the following page along with the reading title for each lesson.

Each theme is addressed in each of three levels of instruction. Lesson plans have been designed for each level of instruction, accompanied by a reading. The videotapes are labeled by theme and level and contain the video material needed for the lesson. Some lessons call for additional reference material that the instructor may need to acquire or review prior to class.

Preparation

In implementing any job specific literacy curriculum, it is helpful to learn about the jobs students do at the worksite. In the manufacturing industry, understanding the workplace, learning about the production process, observing workers on the production floor, and conducting student interviews, helps prepare the instructor use a workplace curriculum. It is important to talk with supervisors and managers and if possible, observe team meetings. More information about how this project accomplished these tasks is provided in The Cutting Edge: Workplace English Project Handbook.

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THE CUTTING EDGE: WORKPLACE ENGLISH
Theme/Reading List

LEVEL ONE	LEVEL TWO	LEVEL THREE
JOBS Sewing	**JOBS** Pressing	**JOBS** Job Descriptions
TOOLS Victoria	**TOOLS** Ergonomics	**TOOLS** Operator Machine Adjustment
NEW TECHNOLOGY Real Time	**NEW TECHNOLOGY** Cutting Technology	**NEW TECHNOLOGY** Dealing with Change
PRODUCTION PROCESS Customer/Supplier	**PRODUCTION PROCESS** Quick Response	**PRODUCTION PROCESS** Modular Manufacturing
HEATH & SAFETY Managing Safety	**HEATH & SAFETY** Safety Procedures	**HEATH & SAFETY** Injuries on the Job
QUALITY Letter from a Customer	**QUALITY** Statistical Quality Control	**QUALITY** Line vs. Modular
COMMUNICATION Listening vs. Hearing	**COMMUNICATION** Decision Making	**COMMUNICATION** Communicating in Groups
LEARNING The New Machine	**LEARNING** The New Employee	**LEARNING** Cross Training
MOBILITY An Opportunity	**MOBILITY** Interviewing	**MOBILITY** Workers' Skills
PROFIT Earning a Profit	**PROFIT** Profit and Profit Sharing	**PROFIT** Cost Control
COMPENSATION Getting Paid	**COMPENSATION** History of Wages	**COMPENSATION** Wage Laws
RELATING TO OTHERS Stereotypes	**RELATING TO OTHERS** Dealing with Conflict	**RELATING TO OTHERS** Saying What You Mean
PROBLEM SOLVING Brainstorming	**PROBLEM SOLVING** Decision Making Methods	**PROBLEM SOLVING** A Group Problem Solving Method
THE CHANGING WORKPLACE Creativity	**THE CHANGING WORKPLACE** Teamwork	**THE CHANGING WORKPLACE** Critical Thinking
RESPONSIBILITY Taking Responsibility	**RESPONSIBILITY** Ethics	**RESPONSIBILITY** Discrimination
LEADERSHIP Who is a Leader?	**LEADERSHIP** Styles of Leadership	**LEADERSHIP** Qualities of a Good Leader
HISTORY The First Jeans	**HISTORY** The Gibson Girl Look	**HISTORY** The Early Years
CULTURE OF THE WORKPLACE Ethnic Groups	**CULTURE OF THE WORKPLACE** Corporate Culture	**CULTURE OF THE WORKPLACE** Work Ethics
BENEFITS Typical Benefits	**BENEFITS** How the Co. Benefits	**BENEFITS** The Value of Benefits
THE MARKET PLACE Marketing	**THE MARKET PLACE** Fashion	**THE MARKET PLACE** Consumer Profiles

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Rationale

The instructional model for this curriculum is based on interactive constructivist theories of learning. The key concepts that influenced the design of the model are listed below:

1. Learning is a natural and inevitable process of assimilating new information presented by the environment. The learner encounters an anomaly, new information that does not fit into existing knowledge, considers the information, and either accommodates the new information into existing knowledge, or rejects it. This process may or may not be conscious.

2. Learning a second language involves two types of knowledge;declarative knowledge - knowing about, and procedural knowledge - knowing how. For example, knowing the past tense of irregular words in English constitutes declarative knowledge, whereas how to use those verbs correctly in a sentence involves procedural knowledge. Language teachers often make the distinction between learning about language, often referred to as theoretical knowledge, such as learning the rules for changing a sentence from the active to the passive, and learning how to use the language, called practical or applied knowledge. Applied knowledge tells the learner when to say "The machine broke" and when to say " I broke the machine".

3. If a learner is going to learn a language, the learner must first have a concept of what that activity is. Most adults have this concept well in hand. Second, the learner must have a real purpose for learning this new procedure. For an adult worker, the motive to learn English is usually, but not always, obvious. They need to learn English to communicate on the job, get a promotion, talk to neighbors, and so on. Third, the learner needs "hooking in places," some way to access existing knowledge in order to make sense of the new information. A common term for this is **comprehensible input**. If the language heard is completely impossible for the learner to understand, the learner cannot access the existing knowledge of the world to make meaning of the new information. However, if any cue exists that allows the learner to access meaning, the learner will begin to learn language. The term **comprehensible** does not mean completely understandable. It means that the learner can "get the gist" of what is being said. Finally, the learner needs experience. Through listening and observation, trial and error, the learner begins to put together a language that works.

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4. Learning language is a process of integrating a phonology, a symbol system, a lexicon, a syntactic system, paralinguistic cues, and cultural/societal rules for language use. This learning occurs naturally through exposure to real language use that is comprehensible to the learner.

5. Barriers to learning language may exist in the adult learner that do not exist in the young child learning to speak his or her native tongue. Adults tend to feel foolish and embarrassed when they make mistakes. Adults may try to avoid using the new language in order to avoid making mistakes. Yet language use, trial and error is a key part of language learning. Many linguists would say that it is impossible **not** to make mistakes when learning a second language unless one never tries to express a thought.

6. Instruction can facilitate the language learning process by creating opportunities for real language use that provide the learner with opportunities to produce language in a comfortable, nonthreatening environment with effective feedback.

7. Second language learners have a separate system of language that lies halfway between the native language and the target language. This is referred to as "interlanguage", a process of trial and error by which learners seek to make sense of the patterns that are used in the language they are trying to learn (target language).

8. The model focuses on comprehensible input in the beginning levels. However, the idea of "communication output" is important as well. The output notion holds that learners need opportunities to use language in meaningful ways (through speaking and writing) so that they can "try out" their ideas and learn to "negotiate meaning". For optimal language development to take place, both output and appropriate feedback (as part of natural conversation) are necessary. Activities that encourage communication output are meant to give students the opportunity to use whatever language they can muster to get their ideas across. Students are encouraged to express their ideas any way they can so that they can develop the strategies necessary for successful communication.

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In light of these concepts, we designed a program that does the following:

- provides comprehensible input through oral and written language

- presents language concerning topics with which the learners are familiar, ensuring that learners' efforts can be focused on learning language as opposed to learning content

- presents language about the work environment, an area where learners are likely to be highly motivated to learn English

- uses video and audio to present comprehensible input by combining visual images with conversational and narrative language to provide a rich source of cues for learners to begin to make meaning of English

- provides opportunities for communicative output designed to help learners get their ideas across

- attempts to provide an environment that is conducive to language learning, allowing instructors to base their instructional interventions on the needs of the learners, and integrate their own ideas about language instruction rather than structuring the program according to an ordering of the forms and functions of language to be taught; i.e grammar, syntax etc.

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THE INSTRUCTIONAL MODEL

The instructional model that is used in **The Cutting Edge** is based on the work of many learning theorists and practitioners that advocate holistic instruction in functional contexts using learners' own experiences and prior knowledge as the vortex of lesson development. The model is also based on the notion that second language learners need to be exposed to "comprehensible input" in order facilitate their acquisition of language and given opportunities for communicative output. The steps of the model are outlined below.

Step 1: Initial Language Input

The objectives of this step in the model are:

- introduce the theme of the lesson to activate learners' previous knowledge of the theme and to add to that knowledge where necessary in order to enhance the comprehensibility of the language in subsequent steps of the model.

- provide learners with the opportunity to listen to extended oral English discourse about themes relating to the workplace with which they are familiar (comprehensible input)

The activities in this step of the model center around a 7-10 minute videotape narrative or "mini-documentary" about one of twenty themes that are addressed in the

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program. The videotape presents live action footage shot in a garment manufacturing plant. Cross cut with this footage are excerpts from interviews with actual garment industry workers who respond extemporaneously to questions relating to the theme of the lesson. In each tape, several subtopics within the theme are addressed; one of these topics is dealt with in greater detail later in the lesson. The same "mini documentary" videotape is used for Step One for all three levels of instruction, but the instructor alters activities depending on learners' abilities or the direction of the lesson.

Step 2: Language Input with Reading

The objectives of this step in the model are:

- provide learners with the opportunity to read and listen to extended English discourse about topics relating to the workplace theme of the lesson (comprehensible input)
- provide reading activities and exposure to print

The activities in this step center around a reading selection that develops a subtopic previously introduced in the mini-documentary. For example, if the theme were Health and Safety in the Workplace, a reading subtopic might be about repetitive motion injury.

This reading selection is presented on videotape. Accompanying the written lesson in the Instructional Materials is a transcript of the material on tape. In the first segment of the videotape for **Step Two**, learners listen to a voice-over narration of the

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reading selection and watch motion video that illustrates the material. In the second segment of **Step Two**, the reading selection is presented with narration and computer generated text superimposed over illustrative still images. Again, this provides a rich source of cues, both linguistic and visual, for learners to use to make meaning of the language. There are twenty mini-documentaries and sixty readings on video. Each video that accompanies the lesson has the following video material.

Video Material:
1:STEP ONE: **Mini documentary**
2:STEP TWO:
Segment One: Motion video with audio of reading selection.
Segment Two: Still image, audio, and computer generated text of the reading selection.

Of the sixty readings, five are presented without the motion video version (segment one). The readings begin with an audio only version. Instructional activities should focus on listening skills. Such variations will be noted on the lesson plan. The audio version is followed by a Segment Two text version.

The reading selections were all written by project staff, and expand on a single subtopic that was presented in the "mini doc" during **Step One**. The reading selections are truly the only part of the instructional program that is graded according to level. Selections are shorter for Level I, gradually lengthening for Levels II and III. The reading level of each selection was evaluated according to the Flesch-Kincaid Readability Index. Reading levels have a wide range from third grade to tenth grade reading levels. In cases where staff had to choose between interest level and reading level, interest level was chosen. Thus some readings may seem more difficult than others. It is important to note that when readings are at the frustration level of learners, the teacher should adjust teaching strategies and use such techniques as mental modeling; this is a teaching method where the teacher reads the passage out

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loud and demonstrates what meaning he/she is making of the passage. The teacher is actually modeling how he/she gets meaning from print.

In general, readings from Level I are in the fourth to sixth grade reading level. Level II readings are in the sixth to seventh grade reading level range. Level III readings are in the eighth and higher grade reading level range. There are exceptions to these ranges, but the curriculum developers opted to include material that was interesting and relevant as opposed to diluting the subject matter to maintain a readability index.

Step 3: Learning Activity

The objectives of this step in the model are

- to provide learners with the chance to focus on the "content" of the lesson, the theme and topic; to explore what the information means to them personally, to share ideas and opinions about the topic with other learners in the class, to apply the information to a real situation
- to begin to use language relating to the topic in a nonthreatening environment.

Activities in this step are usually group activities that address the topic of the reading for the lesson in the real world of the learners' workplace. For example, the reading on repetitive motion injury might be followed by a small-group activity where learners role-play the work they do, discuss the specific instances where workers might be vulnerable to injury, and discuss what individual workers can do to prevent an injury on the job. The exercises in this step often include creative activities such as

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diagraming, illustrating, constructing objects, and role-playing. The intent is to provide a "hands-on" concrete learning activity that enables the learners to internalize the objectives of the lesson.

Step 4: Language Experience

The objectives of this step in the model are:

- provide learners with the opportunity to write their own words and ideas about the topic
- provide teachers with a sample of each student's language output as feedback about the progress of that student's language development and what kinds of instructional interventions are needed for further development.

The writing activity usually springs directly out of the Learning Activity. The Learning Activity described above might be followed by a group writing assignment regarding what learners in the group plan to do to protect themselves from injury. Writing can be done using a the traditional Language Experience Activity technique with learners dictating to the teacher, or writing in groups or individually. Whole language, an approach that underlies this instructional model, suggests that the learner's language should not be corrected during discussion of ideas; only during the editing phase. We recommend that a special time be set aside for editing, and only those errors that the learner identifies as a problem should be corrected (this way the learner retains ownership of what has been written). Group editing and revision activities can also be included in this step when possible and appropriate.

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Step 5: Application Activity

The objective of the application activity is to encourage learners to use English outside the classroom and to apply what was learned in the lesson to other contexts.

Activities may relate directly to the theme, or may reinforce activities that learners can pursue on their own, such as reading the newspaper, listening to the radio or television or doing some type of contact assignment. The application activities are always reviewed at the beginning of every lesson.

IMPLEMENTATION

Following are general suggestions for implementing the instructional model.

Input and Output

Our model assumes that adults learn language best through exposure to and experience with real language use, much in the way that children learn language. As with children, comprehension typically precedes production. Thus, it is important that lower levels of instruction emphasize input activities over output activities. This does not mean that output is not useful or important for beginning students. On the contrary, we have found that output activities serve three important purposes. First, output activities give students the opportunity to begin to use language in a comfortable, relatively nonthreatening environment. It is important that instructors do everything possible to preserve such an environment. Equally important, students need to be encouraged to take learning risks and to be respected when they make errors. If a comfortable and supportive learning environment is created by the teacher, confident students will encourage others to participate. Students will assist each other and request help in a developmentally appropriate way. They will generally help each other in a group to complete assignments that may be too difficult for a student to complete individually. In addition, it can be helpful to talk about the effects of ridicule on students' learning up front in order to build a cohesive class that encourages supportive behaviors.

Second, output activities provide information about what students know. This information can be used to determine what instructional interventions should be provided. Each lesson is rich with activities that the instructors can use to assess and monitor student progress.

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Finally, learners usually demand output activities. They often tend to evaluate what they know of a language only by what they can produce. Also, they may have pressing situations in their daily lives where they need to be able to express themselves in English. An instructor should respond to these demands when possible.

Language and Content

The curriculum provides input materials that address topics that are familiar and interesting to learners. It is easy for the topic of the lesson to become more important than learning language. Only the instructor can decide when this is happening. Because content is a component of the curriculum, the model is structured to provide opportunities for the class to deal with the content of the lesson. But the focus of the instruction should be on language, not content.

Learning Language and Learning about Language

We have not included any activities that address grammar, structure, vocabulary development, spelling, or pronunciation. Further, while it is obvious that the instructor is best qualified to determine what instruction should be provided based on learners' needs, some recommendations for strategies to use in this program may be helpful. It is most appropriate to respond to each person's needs individually and developmentally, and if possible, in private.

Second, isolated grammar drills, vocabulary, spelling etc., have very limited value. Drills are useful however, if they are related to language errors made by learners during the lesson and can be worked into the lesson in a holistic manner. If students demand drills for extra practice, it is a good idea to provide them as homework assignments.

Comprehension and Comprehensibility

These two terms are very similar, but it is important to understand the difference in order to deal with comprehensibility. Comprehension means that the learner understands the concepts and meaning related to a word or group of words. Comprehensibility means that the learner can connect the concepts and the meaning to the word. For example, if the learner reads a paragraph about language teaching written in a second language and understands the terms and concepts involved, and accesses them using the second language representations, that is comprehensibility. However, if the learner reads a paragraph about physical chemistry written in a second language, can translate every word on the page and still not understand anything because the learner does not know anything about physical chemistry, that is comprehension.

The curriculum is a functional context curriculum and therefore an instructor must determine if students do not understand input because of comprehension problems or comprehensibility problems. If comprehension is the problem, then an instructor must address the content as well as the language of the input.

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Interlanguage and Error Correction

Interlanguage refers to the fact that second language learners have a separate system of language that lies half-way between the native language and the target language. Studies have shown that in trying to learn a second language, the learner sets up certain hypotheses that will be tested over time.

> For example, a learner might create the following rule "In English, all past tense forms end in -ed." As a result of this perceived rule, the learner might translate "se fue" with "he goed away." The beginning learner might continue to use this form even if he or she is corrected. With continued exposure to English, however, the learner will begin to say "he went". As part of interlanguage, the learner might also use forms that are carried over from the first language "Tiene ropa roja" might become " She has dress red"; this form will also straighten out after continued exposure to standard English).

Through trial and error (and effective feedback), learners develop closer and closer approximations of the target language. Since interlanguage tends to be highly idiosyncratic (each learner makes up her own rules), it is difficult to provide error correction in ways that allow the whole class to benefit. We know that when giving grammatical explanations, some learners may have already learned the rule, some might not be ready to absorb it, and a few might actually be developmentally ready to use the rule correctly in the future. This third group tends to be very small (one or two learners per class.) For instance, beginning learners of Spanish will not get the past subjunctive down correctly, no matter how often you correct them. It will be hit and miss for quite awhile until they finally "get it".

While some educators support some error correction some of the time, there is pretty much agreement in the field that too frequent correction inhibits language development and is counterproductive to language acquisition. Correction works most effectively when the recipient initiates the correction displaying his/her developmental readiness. In classroom observation, you can tell the learner is ready if he uses the correct rule sometimes, but not consistently.

Errors are a natural part of language development and teachers can provide appropriate feedback to students by encouraging communication and providing opportunities for learners to "negotiate ideas" with whatever language they have. For most language educators who support communicative teaching and whole language approaches, the primary challenge lies in inviting learners to communicate with others without worrying about mistakes. One way of accomplishing this is by initially focusing on "global errors".

Global errors are errors that impede communication and interfere with the basic message that the learner is trying to send. Focusing in this way empowers learners to become responsible for straightening out miscommunication. Rather than having their errors corrected by the teacher, learners are asked to find ways of expressing their thoughts and ideas more clearly. This opens a range of options: Learners might try to say things differently, give additional explanations, select another vocabulary word or ask for help in clarifying their ideas. This type of correction is usually initiated by someone saying: "I'm sorry, I don't quite understand what you are trying

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to say. Can you help me by saying it another way?" This invites learners to develop various ways of clarifying ideas.

Teachers should know that interlanguage involves various stages of language development as learners come closer and closer to approximating the standard forms of the target language. However, many older learners get "stuck" at a particular stage and their language development stops because they can get by with the language that they know. In addition, these adults often are not too concerned about using grammatically correct English. For these adults, error correction works when two conditions are met: the learner (1) has decided he wants to learn how "to say things right" and (2) has the language aptitude and flexibility of mind to integrate new rules into his interlanguage system.

Translation

Many students feel that if they can translate the words they hear or read, they will understand the language. However, translation cannot guarantee understanding. For example, many students laboriously translate sentences word-for-word, creating sentences in their native language that make absolutely no sense at all. A vague understanding of the "gist" of a sentence is more important than a word for word translation because it suggests the learner is getting meaning- that the sentence is comprehensible. This is why paraphrasing is a useful tool. Whether done in English or native language, it is an excellent way to determine if a learner understands the meaning of the language.

Students always seem to want translation dictionaries, and there are times when using the dictionary is very appropriate. Nevertheless, it is also important to help students learn to use other resources of getting meaning, such as visual and linguistic cues from context. Making meaning of language by guessing is an important skill to develop.

SUGGESTIONS

Following are specific suggestions for implementing each step of the lesson plan.

Step 1: Initial Language Input

The objectives of this step in the model are:

- provide learners with the opportunity to listen to extended oral English discourse about themes relating to the workplace with which they are familiar (comprehensible input)

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- introduce the theme of the lesson to activate learners' previous knowledge of the theme and to add to that knowledge where necessary in order to enhance the comprehensibility of the language in subsequent steps of the model.

The primary purpose of this step is to provide comprehensible input. The instructor's task is to make sure the video is comprehensible. The best way to do this is to ask the learners what they understood. This can be done in two ways 1) by asking learners to paraphrase what they understood, and 2) by asking learners specific questions about the content of the video. Often, lower level learners have a hard time paraphrasing in English. If the students in class are monolingual and the instructor speaks the students' language, the instructor can allow students to paraphrase in their native language. Remember: the primary task in this step is to determine if the input was comprehensible, not to require students to produce English. If this can be most easily accomplished in the learners' native language, then that is appropriate. Likewise, if students speak in English, the purpose is to evaluate the comprehensibility of the video based on student understanding, not to correct student output.

Naturally, Level I learners will probably understand less than Level II learners, and Level II learners less than Level III learners. There will also be an increase in understanding as the class progresses through a level. During the first few lessons of this program, many students may claim that the videotapes are too difficult. In some cases, this response may legitimately be a result of misplacement. Chances are, however, that this response is a result of learners long term perception that "they cannot learn English." It is important during the first few weeks of this program to encourage learners intensively and to help them through this typical and common

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period of anxiety. It is analogous to the adult who has always feared water and does not know how to swim. The swimming instructor must first help the learner overcome the fear of the water. This is the same in the adult education class. The instructor must often concentrate more on the affective and emotional aspects of learning before the cognitive domain can be worked on. Therefore, it may be necessary to break the initial language input into manageable segments. It is also important to remember that this part of the lesson is **inquiry** not **mastery**. The expectation is for the learner to hear real undiluted language and get the "gist" of it- not to be able to reproduce it or understand it word for word.

An instructor will probably want to spend more time on this step with Level I learners because they need the input. Here are some suggestions for how to conduct this step:

1. Show the video several times; particularly in the first several class meetings, students may be nervous and fearful, and these emotions will inhibit their ability to understand. Try to reduce the students' anxiety level by showing the video several times.
2. Select only a portion of the video to focus on when asking questions. Focus on the portion that relates to the topic of the reading.
3. Experiment with showing the video without sound during the first viewing. This will allow the learners to focus completely on the visual cues. Use this viewing to identify equipment and processes that they see in the video and preteach the vocabulary.

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4. Give specific listening assignments during each viewing. Examples of listening assignments are:

-listen for one person's job title

-listen for the names of equipment

-listen for words that best explain the topic of this video.

As learners progress through the levels, they will be able to begin providing paraphrases of the videos, first of the overall topic, and with increasing detail as comprehensibility increases.

At this point in the lesson, identify any information that is unfamiliar to students, particularly if it will be the topic of later activities in the lesson. If students are not familiar with the content, it will be doubly difficult for them to make meaning. If comprehension problems exist, spend some time discussing the content of the video. The written script of the video is provided with each lesson so that the instructor can become familiar with the content of the lesson and respond more easily to content related questions.

Step 2: <u>Language Input with Reading</u>

The objectives of this step in the model are:

- provide learners with the opportunity to read extended English discourse about topics relating to the workplace theme of the lesson (comprehensible input)
- provide reading activities and exposure to print to help learners acquire English

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The primary purpose of this activity is also to provide comprehensible input through the written word. Each lesson is accompanied by a reading that expands on a subtopic of the theme. The reading is presented on videotape. Printed transcripts are provided in the instructional materials package.

The following procedure is recommended for conducting the reading activity:

1. Show the reading portion of the video.

   Segment 1: ask students to view the video and listen carefully to the narrator reciting the reading. Following this segment of the reading portion of the video, instructors may want to complete the activities listed here as #2 and #3 before showing the longer text version. (There is a 15 second pause on the video between segments.)

   Segment 2: ask students to read the words that appear on the screen. For lower level students, consider playing this portion of the video through several times. Also, focus on only a small portion of the reading if reading levels are particularly low.

2. Pass out transcripts of the reading to students. Have them read the selection silently to themselves. Encourage them to use the cues they have from the video to figure out what the words and sentences mean. Alternate readings of the transcript with viewings of Segment 1 of the video to allow students maximum use of visual cues.

3. Check comprehensibility. Follow the same procedure as in Step 1, by asking specific questions about content, and by asking students to paraphrase what

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they understood of the reading. Discuss any unfamiliar words and phrases, and deal with any comprehension issues.

4. Additional readings. Consider another silent reading of the selection to reinforce meaning or oral reading for students to work on rhythm, intonation, and pronunciation. Often, students enjoy reading aloud individually and in groups.

5. Once a week administer a reading exercise to measure progress and give students reading practice with an assessment exercise. A cloze exercise for each reading has been included with the lesson materials.

6. Occasionally, the lesson plan recommends workplace reading materials that can be used for supplemental reading materials. These types of materials may or may not be available. Many more materials than the types listed in this guide may be used. Be creative in integrating workplace reading materials into your lesson plans wherever possible so that the needs of the business partner and students can be further addressed.

Step 3: <u>Learning Activity</u>

The objectives of this step in the model are

- to provide learners with the chance to focus on the "content" of the lesson, the theme and topic; to explore what the information means to them personally, to share ideas and opinions about the topic with other learners in the class, to apply the information to a real situation

- to begin to use language relating to the topic in a nonthreatening environment.

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Fairly detailed explanations for these activities are included in each lesson plan. A word of caution; these activities should not be allowed to take up an inordinate amount of time, particularly in dealing with a monolingual class. Sometimes there can be too much focus on the content and not enough development of language or basic skills.

Do not be afraid to replace these activities with others that would be more useful to your students. In the exploration of the business partner, identify activities and materials that would be more useful to students. Look particularly for communication situations that can be roleplayed, forms that can be filled out, and problems that students must deal with and must solve on a daily basis.

Step 4: Language Experience

The objectives of this step in the model are:

- provide learners with the opportunity to write their own words and ideas about the topic
- provide teachers with a sample of each student's language output as feedback about the progress of that student's language development and what kinds of instructional interventions are needed for further development.

The primary purpose of this activity is for learners to produce language in written form. Writing activities are suggested in each lesson plan. The writing activities spring out of the Learning Activity and relate to the theme of the class. These activities can be carried out in several ways. In the traditional Language

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Experience Approach method, students dictate what they want to say to the teacher, who writes it on the board. This works well for low level students and for very reluctant writers. However, instructors are encouraged to utilize group writing and individual writing as soon as possible. Observing students' writing samples and strategies provide instructors with many opportunities to see what students do and do not know. Naturally, when students have some experience with writing, they are able to handle individual writing fairly quickly. Each instructor may be in a different situation and in some cases, students may not know the alphabet. If this is the case, the instructor must work with these students separately after class or with the help of an in class tutor. Instead of writing, these students can be given assignments which ask them to draw pictures or use pictures in magazines that can be cut out and labelled. At any rate, the alphabet must be taught separately.

Step 5: Application Activity

The objective of the application activity is to encourage learners to use English outside the classroom and to apply what was learned in the lesson to other contexts.

Application activities are suggested in each lesson plan and they are related to the theme of the lesson wherever possible. As much as possible each activity involves both input and output. The input encourages students to begin learning from their daily environment, and the output activity, if it is writing, provides the instructor with samples of the students' writing and evidence of progress. It is important for instructors to identify other useful activities that can be carried out in a plant or company, and to integrate them where possible.

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Enlist the assistance and support of plant personnel, English-speaking coworkers, supervisors and managers, whenever an Application Activity requires students to meet with company personnel. In most cases, people are supportive and helpful when they understand the objectives of the program and the needs of the students. Meeting with these people ahead of time, in a group meeting if possible, to explain how they can support students' learning outside the classroom might be necessary. Appealing for support early on from all levels of the organization, can help create an environment that will extend learning beyond the classroom and onto the plant floor.

Adapting the model for the Non-ESL Population

The Cutting Edge: Workplace English was originally developed for second language learners. Although the instructional guide is largely written for the ESL instructor, with a few minor adaptations this program can be used for monolingual English speakers who are non-readers. Most adaptations relate to strategies used in **Step One** of the model. For instance, the initial language input would be used as an initial inquiry and discussion tool for introducing the theme of the lesson as opposed to emphasizing comprehensibility and input. **Step One** can also be used for stimulating language experience activities. Therefore, more class time should be spent on Steps 2,3, and 4 of the instructional model. Basically the lessons and the activities can remain the same if teaching strategies are modified to focus more on the printed word and acquisition of language in print.

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Materials needed:

* Videotapes: The documentary **Tools of the Trade** and the reading video Victoria.

* Copies of the reading to accompany the videotape **Victoria** for every student.

* If needed, copies of the cloze activity for every student.

* Drawing paper.

* Markers or crayons.

Application Activity Review

If there was a previous lesson, review it and answer questions students may have.

Ask students to share their Application Activity with the rest of the class.

Initial Language Input

1. Show the documentary video **Tools of the Trade.** (Note to instructor: See enclosed **SCRIPT** for review of the contents of the videotape)

2. Check comprehensibility;

- Find out what students have understood of the contents of the video.

- Have students summarize the videotape orally, in English or in their native language.

Language Input with Reading

1. Show the reading video **Victoria.** During the first run-through, have students listen carefully to the narrator. During the second run-through, ask students to read the words that appear on the screen.

2. After the video ends, give students a copy of the reading **Victoria.**

3. Have students read **Victoria** silently.

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4. Have students summarize the reading orally, in English or in their native language.

5. Have students read **Victoria** a[illegible].

6. Discuss unfamiliar vocabulary words and their meanings.

7. Ask confident students to read **Victoria** to the rest of the class. Or, students can take turns reading one sentence at a time aloud.

8. Administer the cloze activity or dictation activity as appropriate.

9. Review and discuss the cloze activity or dictation activity as appropriate.

Learning Activity

Separate the class into groups and give each group drawing paper and markers or crayons. Have group members draw pictures of their work stations, including tools and machinery, on the top half of their paper.

Language Experience

Ask group members to help each other write words or sentences under their drawings that describe the tools and machinery they use to do their job. For example, sewing machine, screwdriver, etc.

Allow enough time for groups to present their drawing to the rest of the class when they are finished.

Application Activity

Each student should talk to a co-worker who has a different job within the plant. Students should write words or sentences about the tools and machinery their co-worker uses and bring them to the next class meeting.

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TOOLS OF THE TRADE SCRIPT

NARRATOR: Operators and their machines...workers and their tools...equipment...productivity...quota... Some workers use markers and rulers to do their job. Others use complicated machinery.

A quality auditor uses few tools. While an cperator doing the watch pocket operation uses a sewing machine, scissors or nippers, and an air hose.

EDUARDO GUERRERO:
I operate a tow motor, which is a forklift. I'm a forklift operator. I'm licensed to drive a forklift. And I've utilized a palate jack a lot, also, which is an electronic palate jack. Well, mainly my other tools are like a pen. I usually just have a pen and I work a lot with my, you can say, my brain, you know 'cause my work is not very physical. Its just a lot of mental, you know count the parts and make sure that everything that comes in is complete.

ALICIA REYES:
What we need is a six inch ruler, a pen, staple, some carts.

NARRATOR: We invented tools to help us do tasks we could not do with our bare hands. As work changed, so did our tools.

The invention of electricity gave us the ability to create machines. As a result, our tools and equipment become more complex and more powerful. Work become more mechanized.

Modern equipment enables a worker to be more precise...

Modern equipment enables a worker to perform one task - sewing for instance - in many different ways.

JOSE MENCHOR:
That if the employee is working in an environment where he feels more comfortable that employee is going to produce a quality product.

NARRATOR: Ergonomics allows companies to design work stations that fit operators. Equipment can be arranged to meet the individual needs of a worker. Adjustments, such as this one, are more productive. The equipment is arranged safely and comfortable to suit the worker.

NARRATOR: Equipment can be simple or complex. A worker uses this piece of equipment to do a job that someone once did by hand.

Here a worker uses a complex machine...

Here a worker uses a simple tool...

Often, modern sewing machines have time saving and energy-saving devices. For example, the folder on a sewing machine is a time saving device. It is a device for saving the operator time.

Here an automatic stacker does the work some operators do by hand. A worker using modern equipment can produce more in less time with less fatigue.

Sewing machine operators usually clean their machines every day. This daily maintenance--cleaning and oiling--- is very important. It keeps the machine in good working condition and helps prevent breakdowns. When a breakdown does occur, workers follow specific guidelines.

The mechanic usually needs to talk to the operator about the machine to help him decide what is wrong. If the breakdown will take some time to repair, the operator may need to move to another machine.

BEA CHACON:
If there's a spare machine you have to work on the spare machine. And you can work on the spare machine but, its like wearing your tennis shoes. You know, I can run in your tennis shoes but, I can't run as fast as I can in mine.

NARRATOR: Some companies are teaching operators how to make simple repairs and adjustments to their machines. Most operators already change needles and tension on the bobbins.

But most important IS the daily maintenance--cleaning and oiling the machine.

Operators and their machines....

Workers and their tools of the trade....

Victoria

My name is Victoria. I am a sewing machine operator in a factory that makes jeans and slacks. I do the waistband operation. I use several tools to do my job. The most important tool I use is my sewing machine. I take care of my machine so that it will work well.

My sewing machine has many parts. Each part serves a different function. For example, the cones hold the thread on the thread stand. The thread flows to the needles and loopers. I make sure I select cones with the correct color and weight of thread when I begin working. The color and weight of the thread depends on the kind of garment that I am sewing.

My machine has two devices that save time and energy. One device is an automatic folder. It folds the waistband for me quickly and correctly. After I sew the waistband to the garment, I use automatic scissors to trim the band. All I do to operate these scissors is press a button. Both devices save me time and energy.

I must clean and oil my machine daily. It takes a little time to do this maintenance, but my machine works better when I clean and oil it.

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TOOLS OF THE TRADE **LEVEL ONE**
Cloze Exercise

Victoria

My name is Victoria. I am a sewing machine operator in a factory that makes jeans and slacks. I do the waistband operation. I use several _____ to do my job. The most important tool _____ use is my sewing machine. I take care _____ my machine so that it will work _____.

My sewing machine has many parts. Each part _____ a different function. For example, the cones hold _____ thread on the thread stand. The thread flows _____ the needles and loopers. I make sure I _____ cones with the correct color and weight of _____ when I begin working. The color and weight _____ the thread depends on the kind of garment that _____ am sewing.

My machine has two devices that save time _____ energy. One device is an automatic folder. It folds _____ waistband for me quickly and correctly. After I ____ the waistband to the garment, I use automatic _____ to trim the band. All I do to _____ these scissors is press a button. Both devices _____ me time and energy.

I must clean and _____ my machine daily. It takes a little time ____ do this maintenance, but my machine works better _____ I clean and oil it.

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Materials needed:

* Videotapes: The documentary **The Impact of New Technology** and the reading video **Cutting Technology**.

* Copies of the reading to accompany the videotape **Cutting Technology** for every student.

* If needed, copies of the cloze activity for every student.

Application Activity Review

If there was a previous lesson, review it and answer questions students may have.

Ask students to share their Application Activity with the rest of the class.

Initial Language Input

1. Show the documentary video **The Impact of New Technology**.

2. Check comprehensibility;

   - Find out what students have understood of the contents of the video.

   - Have students summarize the videotape orally, in English or in their native language.

Language Input with Reading

1. Show the reading video **Cutting Technology**. During the first run-through, have students listen carefully to the narrator. During the second run-through, ask students to read the words that appear on the screen.

2. After the video ends, give students a copy of the reading **Cutting Technology**.

3. Have students read **Cutting Technology** silently.

4. Have students summarize the reading orally, in English or in their native language.

5. Have students read **Cutting Technology** aloud.

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6. Discuss unfamiliar vocabulary words and their meanings.

7. Ask confident students to read **Cutting Technology** to the rest of the class. Or, students can take turns reading one sentence at a time aloud.

8. Administer the cloze activity or dictation activity as appropriate.

9. Review and discuss the cloze activity or dictation activity as appropriate. Quickly review the previous lesson and answer any questions your students may have.

Learning Activity

Initiate a discussion with your students by asking them the following questions:

Can you name at least three technological changes that have occurred in your plant recently?
How have these changes affected you?
Have these changes affected you in a positive or a negative way?

Note: The purpose of these questions is to help students think about technological changes in their plant and how these changes have affected them. Feel free to come up with your own questions and to pursue the answers students supply.

Allow your students enough time to voice their opinions and/or experiences with technological changes in their plant.

Language Experience

Have students write about the opinions and/or experiences they voiced during the learning activity.

Application Activity

Ask students to think about how the progress of technology has affected their work place. Have them write about technological advances they feel have been good for the plant, those they feel have been bad and reasons why they feel the way they do.

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THE IMPACT OF NEW TECHNOLOGY SCRIPT

NARRATOR: New forms of technology touch our lives everyday -- computers, microwave ovens, automatic teller machines, CD's, laser discs. From the check out at the grocery store to remote control television, technology impacts our lives.

New technology is also changing the workplace. In the apparel industry, automation and computerization change the work that workers do.

VICKI ALVARADO:
There's been a lot of changes here since I've been here because everything was manual sewing machines and now they have a lot of automatic machines.

NARRATOR: Industry is always looking for new ways to accomplish tasks more efficiently, quickly, and safely. This is particularly evident in the garment industry.

JOSE MELCHOR:
We have to stay competitive and that's one of the reasons for the automated equipment, is to stay competitive with those other companies. And it's something that the operators and us as employers and employees have to understand.

VICKI ALVARADO:
They were worried; scared you might say, because it is something different. They have to go through retraining all over again for the same operation.

NARRATOR: If it hasn't happened already, some form of new technology is likely to show up at your plant.

ESTER MARTINEZ:
At first we thought that it was going to be real hard learning the new equipment. But once you get the hang of it, it gets better and better.

CHRISTINA VILLASENOR:
Resistance is normal. It's human nature to resist something that's new -- especially when it's gonna affect you and your paycheck, maybe your job. Maybe it's going to be eliminated. But with the proper education. Cause, you just can't go, well sorry that's the new machine and that's it. You have to educate the people- why.. Why is it better for the company? Why is it going to be better for them?

NARRATOR: Inventing a more effective, time-saving system can help to increase production and save companies time and money. New technology can make a company much more competitive in the marketplace. For example, the new computer terminals located at the work stations on the production floor, make the plant more efficient. Before these computers were used, workers had to stop their routine to paste tickets on gum sheets, clock out or count completed garments.

To a worker paid by the piece, time saved is money earned. To a company, more time on the job can lead to increased production.

With this computer terminal, a worker enters information throughout the day. There is little delay in their work routine. The computer keeps track of time, production and hours worked. This system is a relatively new device that saves an operator time and energy. It also allows a company to more accurately track production.

NARRATOR: The computerized cutting machine is another development that is changing the cutting operation. In a traditional system, material was cut by a worker using a manual cutter. Now, automated cutting machines are being used. The automated cutter is a very large computerized machine that cuts material quickly and accurately. This new technology can supplement the manual cutter. With the hand cutter, a worker pushes the tool with one hand while guiding the material with the other.

It seems clear that an automated cutter and a Time system can improve a plant's overall operation. However, it is difficult for some employees to adapt to new technology. One reason why workers have difficulty with new technology is because they fear losing their jobs. And, in some cases, automation does replace workers. Often workers are laid off, transferred to other production areas, or re-trained for different operations. Workers must therefore learn a new job.

CHRISTINA VILLASENOR:
That's how come you have to keep changing, that's the selling point that we give the operators. They go, "Gosh, Chris, we're changing again? I barely got the hang of this." But, we have to keep up with the times. We can't afford to stay behind.

Cutting Technology

My name is Raul. For many years, I worked as a hand cutter in the garment industry. To do my job, I used a manual cutting tool that has a large blade. This tool can cut through many layers of cloth at once. The pattern was marked on the top of the cloth. I pushed the cutting tool along the lines of the pattern with my right hand and held the pattern down securely to the cloth with my left hand. I wore a metal glove on my left hand to protect it from getting cut. It took quite a bit of strength and energy to do this job, but I liked it. I was proud of the work I did.

Then one day, my supervisor told us that the company had bought a computerized cutting machine. He told us that this machine can cut material much faster than the manual cutter. The person operating this machine must learn how to operate a computer. He also told us that because this machine was so fast and efficient, there would no longer be a need for as many hand cutters.

A few of the hand cutters were laid off, but others were retrained to do other jobs. I was trained to operate the computerized cutter by my employer. I didn't like this machine at first, but I understood why the company had decided to buy it. The machine could cut material much faster. Also, the machine rarely causes injuries.

For me, this story has a good ending. The company has trained me to operate the cutting machine. I am also adjusting to all the changes resulting from this new technology. The next time the company buys new equipment, I think I will be better prepared.

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THE IMPACT OF NEW TECHNOLOGY LEVEL TWO

Cloze Exercise

Cutting Technology

My name is Raul. For many years, I worked as a hand cutter in the garment industry. To do my job, I used a manual _____ tool that has a large blade. This tool _____ cut through many layers of cloth at once. _____ pattern was marked on the top of the _____. I pushed the cutting tool along the lines _____ the pattern with my right hand and held _____ pattern down securely to the cloth with my _____ hand. I wore a metal glove on my _____ hand to protect it from getting cut. It _____ quite a bit of strength and energy to _____ this job, but I liked it. I was _____ of the work I did.

Then one day, _____ supervisor told us that the company had bought _____ computerized cutting machine. He told us that this _____ can cut material much faster than the manual _____. The person operating this machine must learn how _____ operate a computer. He also told us that _____ this machine was so fast and efficient, there _____ no longer be a need for as many _____ cutters.

A few of the hand cutters were _____ off, but others were retrained to do other _____. I was trained to operate the computerized cutter _____ my employer. I didn't like this machine at _____, but I understood why the company had decided _____ buy it. The machine could cut material much _____. Also, the machine rarely causes injuries.

For _____, this story has a good ending. The company _____ trained

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me to operate the cutting machine. I _____ also adjusting to all the changes resulting from _____ new technology. The next time the company buys _____ equipment, I think I will be better prepared.

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Materials needed:

* Videotapes: The documentary **Health and Safety on the Job** and the reading video **Injuries and Health Problems.**

* Copies of the reading to accompany the videotape **Injuries and Health Problems** for every student.

* If needed, copies of the cloze activity for every student.

* If possible, have the plant's nurse or safety officer speak to the class about job safety.

Application Activity Review

If there was a previous lesson, review it and answer questions students may have.

Ask students to share their Application Activity with the rest of the class.

Initial Language Input

1. Show the documentary video **Health and Safety on the Job.**

2. Check comprehensibility;
   - Find out what students have understood of the contents of the video.
   - Have students summarize the videotape orally, in English or in their native language.

Language Input with Reading

1. Show the reading video **Injuries and Health Problems.** During the first run-through, have students listen carefully to the narrator. During the second run-through, ask students to read the words that appear on the screen.

2. After the video ends, give students a copy of the reading.

3. Have students read **Injuries and Health Problems** silently.

4. Have students summarize the reading orally, in Englisn or in their native language.

5. Have students read **Injuries and Health Problems** aloud.

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6. Discuss unfamiliar vocabulary words and their meanings.

7. Ask confident students to read **Injuries and Health Problems** to the rest of the class. Or, students can take turns reading one sentence at a time aloud.

8. Administer the cloze activity or dictation activity as appropriate.

9. Review and discuss the cloze activity or dictation activity as appropriate.

Learning Activity

If possible, ask the plant's nurse or safety officer speak to the class about job safety and precautions students can take to avoid on-the-job injuries or illnesses.

Or, initiate a discussion with your students by asking them the following questions:

What do you do to protect yourself from getting hurt on the job?
What safety precautions should you take but don't always?
What are your reasons for not taking these safety precautions?
Have you ever been hurt on the job? If so, what happened and could the accident have been prevented? If not, what has kept you from getting hurt on the job?

Note: The purpose of these questions is to help students think about safety precautions. Feel free to come up with your own questions and to pursue the answers students supply.

Language Experience

Ask students to write about their personal attitude toward job safety. Some questions they may wish to answer may include:

Do you take safety precautions for granted? Why or why not?
Are you especially careful when working with hazardous tools or machinery? Why or why not?

Allow enough time for students to present and discuss their opinions on job safety with the rest of the class when they are finished.

Application Activity

Students should find a story about an accident in the city newspaper. Ask them to read it, write their opinion about the accident and how it could have been avoided. They should be prepared to read their opinion to the rest of the class at the next class meeting.

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HEALTH and SAFETY ON THE JOB SCRIPT

NARRATOR: Health and safety in the workplace is an important issue for workers and employers. In a decade of technological change and environmental crisis, the effort to create and maintain a safe and healthy work environment is a constant challenge.

ENRIQUE GRANIERRO:
Safety is a very important thing because we try to make the workplace as safe as possible for employees to work and feel comfortable without having to worry about getting hurt or slipping or falling.

NARRATOR: Safety specialists in the manufacturing industry monitor the impact of technology and job mechanization on the health and safety of workers. In the apparel industry, specialists monitor many aspects of the work environment. For example, safety experts periodically check the noise level in the workplace. Noise levels are monitored to make sure that they are within an acceptable range. Manufacturing plants supply workers with hearing protection and require that they wear the protection in certain areas of the plant. The effects of exposure to intense levels of noise become apparent over a long period of time. An employee, whose hearing is being damaged, will not feel the damage as it occurs. Because of this, it is even more important for workers to take precautions to protect their hearing.

To set national workplace health and safety standards, Congress passed the Occupational Safety and Health Act in 1972. This Congressional Act created the OSHA agency. To provide a safe work environment for all workers, OSHA sets safety and health standards, conducts inspections of workplaces and enforces regulations. According to law, it is the employer's responsibility to create a safe workplace. The employer must provide safety equipment and training to support the standards set by the government. But finally, it is the employee or worker who will carry out the safety standards of any company.

RICK VALLE:
Well, we have to wear smocks, respirators, goggles, ear protection, ear plugs and if you want to put a cloth, that's up to you, on your head for your hair because it dries up.

WILLIE IBARRA:
We are proud to say our plant is very clean. Everybody ...does his part to keep his area at least clean. Cause when you have a dirty floor it's very easy to slip ...and get hurt. It's almost like quality, if you're insecure in your work area, you get hurt.

NARRATOR: Employers set safety standards for specific job tasks and operations. There are also safety standards for the entire plant. For instance, common safety rules require that aisles and passageways be kept clear and that workers who lift heavy objects use proper lifting techniques. In the apparel industry common safety rules demand that workers ALWAYS operate machinery and equipment with shields or guards and safety devices in place.

DARIL DORAN:
Safety is very important because an accident can be very disruptive. If someone in this plant gets hurt, besides the physical discomfort they experience, it can disrupt their work and personal lives as well.

NARRATOR: Sewing machines usually have a needle guard or shield. This guard protects the worker in case the needle on the machine breaks while the operator is sewing.

LINDA GUTIERREZ:
Make sure you have that shield, that safety shield. It's a shield that if the needle should break, it won't go into your eye. You have to have that shield.

NARRATOR: Safety is an important issue to everyone. It is important to workers and it is important to employers. Workers play a vital role in maintaining a safe work environment.

JOSE MENCHOR:
We have a safety committee in this plant that periodically, monthly or I think it's every two weeks, they go out and check each section. Our responsibility, you know, as a supervisor is also to be checking, you know, our machinery as far as to see if they have their pulley guards, finger guards, eye shields. And, also the responsibility, you know, in educating each operator for themselves to also oversee their work station as far as that these devices are on this machine.

ALICIA REYES:
For safety, we've all gotten to a point that everybody has to sweep their area about two or three times a day, when you have a chance to. Or try to have a chance to do that. You'll see a lot of rivets or belt loops on the floor and that could cause an accident.

NARRATOR: Over the last decade, many companies have incorporated exercise programs into the daily work routine. Employees meet at the beginning of a shift and exercise together.

ENRIQUE GRANIERRO:
About five or ten minutes prior to seven o'clock, we do our daily exercises. The whole plant, we exercise for about five, ten minutes and prepare the body itself: the joints, the hands, the arms, the legs, to get ready for the work day and then we start working.

NARRATOR: Stretching is important preparation for machine operators in the garment industry. Job tasks usually involve repetitive motion. Prevention of repetitive motion injuries is the primary focus for workplace safety programs in this decade.

A repetitive motion disorder is a type of nerve and muscle injury that afflicts workers who repeat the same movement or action hundreds of times every work day. Assembly-line workers, poultry and meat packers, grocery cashiers, clerical workers and computer operators frequently complain of these injuries. Taking a break for a few moments at the work station is one way workers can better take care of their health. Stopping periodically to stretch and flex the muscles and joints breaks the cycle of tension that builds from doing a repetitive motion. Employers are helping by arranging work stations to better fit operators.

Industrial engineers study how work is performed for a specific operation. They make ergonomic recommendations for maximum operator comfort and safety.

ROSEMARY DE LA ROSA:
Companies are very concerned about providing a safe place for people to work. I recommend that operators take a few seconds or a minute out of each hour and interrupt their routine. They might shake their arms or stand up and stretch. But, all this has long term benefits for their health. In general, overall body conditioning seems to really guard against injury. So exercise, keep in shape, and, by all means, at the first indication of any pain or discomfort talk to your plant nurse.

NARRATOR: We now know that certain injuries like repetitive motion disorders can be prevented and we know how to intervene and reduce these types of injuries. When companies and employees work on safety together, the number of accidents and injuries in the workplace is reduced. A safe workplace is a partnership process. Workers should stay informed, take precautions against known hazards, and practice preventative health care.

ROSEMARY DE LA ROSA:
And we've got to start now. Each one of us as a worker has a responsibility to take care of our own health the best possible way we can. So we encourage everybody to take responsibility for their own self and take the best possible care of their health as they possibly can.

NARRATOR: In the coming decade the workplace will continue to change. Technology, tools, and new work strategies will continue to challenge workers and companies. To maintain a healthy and safe workplace and face the challenges created in the work environment, workers and employers will play a vital role together.

Injuries and Health Problems

My name is Ana Alvarez. I am a physician's assistant and I work as a safety manager in a large garment manufacturing plant. Our plant has a design department, a cutting room, several sewing lines, a finishing department and a shipping/receiving department. We employ many people. I am the first health care worker to see an individual who is injured or has a health problem while on the job.

Sometimes workers come to see me about illnesses that are not work-related, such as colds and flu. If they are too ill to work, I send them home and encourage them to see their doctor. Workers also come to me with work-related injuries and health problems. It is my job to make sure that they get proper treatment. I look for ways to prevent further illness or injury.

Employees may complain about pain or discomfort in their hands, arms or shoulders. This can be an indication of a repetitive motion injury. We have begun a training program to inform workers of this problem. We teach them ways to avoid developing an injury. If an employee experiences any pain, we refer them immediately to a doctor's care.

Workers may suffer cuts, scrapes, or puncture wounds from needles or scissors. We require workers to use needle guards on all sewing machines. Cutters wear gloves made of steel mesh to protect their hands.

There are other potential hazards in the workplace. For example, laundry workers in the finishing department work with chemicals and stones to create

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stonewash effects on the finished garments. These workers must follow strict rules for handling these chemicals. They must also wear protective coveralls, rubber gloves, masks and goggles.

Workers in all departments often lift or push heavy loads, so we begin our work day with a series of exercises. To help workers avoid injury, we teach proper lifting and pushing techniques, and we provide workers with support belts. Some of the departments in the plant produce high levels of noise. In these areas, employees are required to wear ear plugs to guard against hearing loss.

Finally, all employees are required to work together to keep the plant clean and free of clutter. This helps prevent slips and falls, cuts, and inhalation of dust and dirt. I work with supervisors and workers to educate all employees on health and safety. I post signs to remind workers of safety requirements. I am always available to employees who have questions concerning their health. We work together as a team to keep our plant a safe place to work.

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Injuries and Health Problems

My name is Ana Alvarez. I am a physician's assistant and I work as a safety manager in a large garment manufacturing plant. Our plant has a design department, a cutting _____, several sewing lines, a finishing department and a _____ /receiving department. We employ many people. I _____ the first health care worker to see an _____ who is injured or has a health problem _____ on the job.

Sometimes workers come to see _____ about illnesses that are not work-related, such _____ colds and flu. If they are too ill _____ work, I send them home and encourage them _____ see their doctor. Workers also come to me _____ work-related injuries and health problems. It is _____ job to make sure that they get proper _____. I look for ways to prevent further illness _____ injury.

Employees may complain about pain or discomfort _____ their hands, arms or shoulders. This can be _____ indication of a repetitive motion injury. We have _____ a training program to inform workers of this _____. We teach them ways to avoid developing an _____. If an employee experiences any pain, we refer _____ immediately to a doctor's care.

Workers may suffer _____, scrapes, or puncture wounds from needles or scissors. _____ require workers to use needle guards on all _____ machines. Cutters wear gloves made of steel _____ to protect their hands.

There are other potential _____ in the workplace. For example, laundry workers in _____ finishing department work with chemicals and stones to _____

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stonewash effects on the finished garments. These _____ must follow strict rules for handling these chemicals. _____ must also wear protective coveralls, rubber gloves, masks _____ goggles.

Workers in all departments often lift or _____ heavy loads, so we begin our work day _____ a series of exercises. To help workers avoid _____, we teach proper lifting and pushing techniques, and _____ provide workers with support belts. Some of the _____ in the plant produce high levels of noise. _____ these areas, employees are required to wear ear _____ to guard against hearing loss.

Finally, all employees _____ required to work together to keep the plant _____ and free of clutter. This helps prevent slips _____ falls, cuts, and inhalation of dust and dirt.

_____ work with supervisors and workers to educate all _____ on health and safety. I post signs to _____ workers of safety requirements. I am always available _____ employees who have questions concerning their health. We _____ together as a team to keep our plant _____ safe place to work.

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