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ABSTRACT

Following an introductory section that provides a rationale for using computers in workplace literacy classes, this guide reviews six computer programs and provides activities that teachers can use with the programs in teaching workplace literacy classes. The six computer programs reviewed are as follows: "Grammar Games," "Spell It 3," "The Way Things Work," "My First Incredible Amazing Dictionary," "Community Exploration," and "First Connections: The Golden Book Encyclopedia." Except for "Grammar Games" and "Spell It 3," the software reviews provide information on the version of the program, the vendor, the system requirements, the type of program, the documentation included, and the recommended group size. They also describe the programs, explain how they work, and evaluate them. Activities for each program include information on type of activity, level of learner, National Workplace Literacy Learner Objectives, materials and resources, procedures, evaluation, and (sometimes) extensions. (KC)

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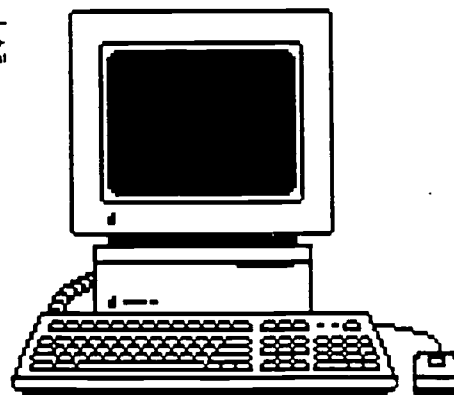
Enhancing Instruction Through Technology

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Enhancing Instruction Through Technology

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Introduction

RATIONALE

Computers offer new ways, fresh ways, to improve literacy. Instructors in workplace programs are reporting innovative approaches to enhancing existing curriculum and creating additional curriculum using computer software. Specifically, computers enhance instructors' ability to meet adult learners where they are, give them choices in their learning, and flexibility in their learning schedule.

Furthermore, a definition of the term *literacy* must now be expanded to include those elements needed for computer literacy. It is no longer sufficient for workers to be able to read and write; they must also have skills for the already omnipresent technology in the workplace which will enable them to be productive, contributing members of the work force in the 21st century.

The use of computers in workplace literacy instruction offers many benefits for the key stake holders of the student, the instructor, and the company. Following is a brief listing of the advantages for each of these groups.

The Learner

The use of computers in instruction offers the following advantages for the learner.

1. New alternatives for learning

Computers present a new, fresh way for students who may have experienced frustration or failure in traditional educational settings. Computer use is a fun, stress-free way for students to explore information and gain skills in the privacy of an individual or small group setting.

2. Flexibility in learning time and setting

The adult learner faces many challenges when balancing a job, home and family, and a desire to improve literacy skills. Computers, which can be used all twenty-four hours of the day and are portable to many different settings in and outside the workplace, alleviate time and setting constraints that a traditional classroom setting would impose on an adult learner.

3. Motivation

Instructors have long understood the value of motivation in learning. Motivation is a critical ingredient to both the learner and to the instructor in sustaining interest and, consequently, in learning. Students of all ages report how motivating and fun instruction on the computer is. Indeed, there is a very positive, professional reaction to computer use, whether it is for enhancing literacy skills or the many other uses computers have in the workplace. Workers also understand the long-term value of enhancing their workplace skills, and consequently their job security, with computer experience.

4. Individualized instruction

Good computer software meets every learner where they are and takes them where they want to go. With the wide variety of needs, experiences, and preparedness that adult learners bring to educational settings, individualized instruction is a necessity which is an integral part of computer software programs.

5. Choice and control

Learner choice is a critical issue in adult learning. Learner empowerment, control of the learning, is perhaps the biggest attribute of computer software instruction, because learner control and choice is built into each program. In fact, learners must control their learning and make individual choices in order to access any information on the computer.

The Instructor

While there are many reasons instructors should consider computer assisted instruction in the adult workplace setting (many are listed above as learner advantages), the following are the most critical from the perspective of the instructor.

1. Improving curriculum

Instructors use many techniques and methods to meet their educational objectives with their students. Using the computer to enhance instruction adds to those techniques teachers already use. Much research has been done regarding modalities of learning, learner preference, and learner styles. Multi-media software, with its ability to offer sound, full motion-video, and interactivity, is an exciting new technology which offers many new alternatives for learning in general, and specifically addresses many of the issues of learner preference and style.

In addition, instructors who use the computer for classroom instruction are adding a critical new element to their curriculum: instruction in computer literacy. Adult learners are in need of technology skills which will make them prepared to meet the technology challenges which are already present in the workplace and those which are quickly coming

2. Recruiting and retaining learners

The motivation power of computers has already been discussed, but this motivation translates into higher retention rate of students, more continuity of instruction, and more enthusiasm for learning. Instructors also are able to use the individualized computer instruction as a selling point for their program to both the individual worker and the company in need of services.

The Company

Enhancing literacy skills, introducing computer skills, and offering flexible time are three important advantages for companies in computer assisted instruction.

1. Enhancing literacy skills

Companies have invested heavily in seeking to improve general literacy skills of their workers. For reasons listed under the headings "learner" and "instructor", computer assisted learning will help meet those goals in unique, motivating ways.

2. Introducing computer skills

Computers are everywhere in the workplace, and their uses continue to expand. Enhancing workers' computer skills will make workers more capable of meeting the technology challenges that are inevitable. The advent of electronic mail has opened the way for all inter-office communication to be computerized, and the possibility of office forms such as sick leave, accident reports, etc. to be accessed and completed on computer. These realities force us to expand our workers' skills to include the ability to use a computer in order for businesses to run effectively.

3. Flexibility

Businesses have many time constraints and schedules which can sometimes interfere with a traditional classroom setting. The use of computers allows workers the flexibility to choose a convenient time to do both tasks, and thereby enhance the overall productivity of the workplace.

Models of Computer Use in the Classroom

There are as many ways to use computers to enhance instruction as there are types of computers. The student activities in this document are delineated under 3 broad headings: In class, Independent, and Independent with In-Class Follow-Up. A short explanation of each type of activity follows.

I. In-class Large group instruction

These activities are characterized by teacher assistance. Sometimes the teacher will provide a model for how to use a particular program, other times the teacher will be assisting small groups of students in navigating through the program. Another way in which computers are effectively used in the classroom in a large group setting is for a student (or students) to be responsible for the keyboard and/or mouse and others, including the teacher, to monitor and assist through the aide of a large monitor attached to the computer. A final way in which computers might be used during class time with a large group of students is for students to take turns accessing the information they need through the computer while other students are otherwise engaged in a related activity.

II. Independent

Outside the classroom activities allow students to choose the time and setting in which to complete computer assisted literacy tasks. These independent activities may be completed with or without partners or small group support. There is flexibility in the design of the activities to explore both one student at the computer and students working together in small groups to complete various tasks.

III. Independent with In-Class Follow-Up

This type of activity is perhaps the most useful, combining the above two types of activities. This activity allows students the flexibility and autonomy adult learners seek while still providing the essential components of feedback, assessment, and interaction with peers in the learning process. There are many activities designed with this type of model so that many skills can be developed simultaneously with one activity.

Grammar Games and Spell It 3

Grammar Games

This software provides drill and practice for four different areas of grammar:

- **Rain Forest Rescue** covers sentences and fragments,
- **Falling Fruit** practices punctuation,
- **Hidden Wonders** practices verb usage, subject-verb agreement, verb form, and word usage, and
- **Jungle Gizmo** practices plurals and possessives.

There are 3 levels within each game the user can choose to access. They are given multiple chances, then the correct answer is revealed. The program provides an opportunity for students to independently practice grammar skills of their choice and provides immediate feedback. The major drawback of the program is that it is non-interactive. Students response only to incorrect sentences generated by the program, and have no opportunity to generate their own sentences to practice the various grammar skills. However, it does provide valuable grammar practice specifically for ESL learners such as subject-verb agreement that is difficult to find in other programs.

Spell It 3

This program provides five different games for users to sharpen their spelling skills. They are all similar: users either supply missing letters or correct incorrect spellings. The most helpful feature of this program for adult ESL learners is the speech function. Users may choose to hear the words spoken and spelled orally by choosing a button on the screen. In addition, the Spelling Bee option provides dictation practice for students where active listening may be practiced. Spelling is a skill which is developmentally specific to each learner, so this type of program provides practice which addresses the particular needs of each individual student. This type of private, individual, self-paced instruction is a major advantage for adult ESL learners.

**Connections Between Grammar Games and Spell It 3 with
National Workplace Literacy Basic Skills**

- √ = peripheral connection to this basic skill
 √√ = some practice indirectly connected to this skill
 √√√ = practice provided which is directly related to the skill
 √ √ √ √ = extensive, direct practice on this skill is provided

National Workplace Literacy Basic Skills	Grammar Games	Spell It 3
Recognize Letters And Numbers		√ √ √ √ (all games)
Follow Written Directions	√ √ (all games)	
Active Listening		√ √ √ √ (Bayou Word Preview and Spelling Bee)
Copy Letters And Numbers		√ √ √ √ (all games)
Determine Meaning Of Unfamiliar Word From Context		√ √ (Frog Crossing)
Scan For Information	√ √ √ (all games)	
Write Common Words		√ √ √ √ (all games)
Use Correct Punctuation And Capitalization	√ √ √ √ (Falling Fruit)	
Write Simple Sentences	√ √ √ (all games)	√ √ (all games)
Write Complex Sentences	√ √ √ (all games)	

*The Way
Things
Work*

CD-ROM Review

Name of Program: The Way Things Work	
Version: 1.0	Producer: Dorling Kindersley
System Requirements: 386 SX, VGA, CD-ROM drive, 4MB of RAM, Windows 3.1	
Type of Program: Multi-Media	
Documentation Included: none	
Recommended Size of Group: individual or small group	

I. PROGRAM DESCRIPTION AND ORGANIZATION

The Way Things Work is a unique multi-media guide to the world of machines, inventions, and technology. The main screen is a workshop of various machines and inventions. Users choose anything in red to hear, see, and explore the various machines. The cursor changes from an arrow to a hand to show users the hot spots on the screen. There is a tool bar down the left side of the screen and four tools at the bottom of each page: Back (this takes you to the previous screen) Index, Options (printing or copying) and Help (on-line assistance).

TOOLS AND PATHS

There are 5 main paths. They are:

Workshop

This path also serves as the main screen, so it is the screen users first view when opening the program. Here users can click on a machine on one of the many shelves and the machine will have an audio and animated response. For example, the drill will make a drilling sound and rotate. Once the user has chosen a particular machine, then another path can be selected to explore this machine further. The workshops serves as an audio and animation beginning to the other paths.

Machines

Choosing this path takes you to a new main menu, a large wheel with the letters of alphabet in red. Upon choosing a letter, another screen appears with all the choices for that particular letter. When the user again chooses a particular machine to explore, a very detailed entry for that item will appear on the screen. It includes the word written clearly at the top, a drawing illustrating the machine or concept, and a written explanation of the

machine. There are words in red, which are hotspots, within the definition/explanation, as well as accompanying many of the illustrations. There are related items in boxes to the left of the explanation. There are many labeled pictures of various machines and inventions. Many entries also have a movie icon which, when selected, will show a humorous short video that illustrates the point of science or machine.

Many entries also have a "How it Works" section, which explains the concept or machine with the aide of a voice explaining while a labeled illustration is animated to aide the explanation. For example, to explain how a bell rings, a person speaks about the idea while the illustration moves as the voice explains the different steps in the process.

Principles of Science

The main screen of this path shows many pictures with red words under them such as friction, sound, electricity, and pulleys. Users choose the principles they are interested in, and the program takes them to a screen devoted to explaining this concept through illustrations, video, and text. For every entry on this path there is a box in the right bottom corner titled "Related Machines". When a user clicks on this box, a list of related machines appears from which the user can make a selection.

History

The bottom of the screen at the main menu of this path is divided into 5 time periods with dates and names for each era (Steam Age, Silicon Age, etc.). When users select an era, a new screen appears with a timeline in the middle of the screen and illustrations and dates of major inventions for the time period. The user can select any of these to explore further, or browse through the timeline in general.

Inventors

A book with tabs for each letter of the alphabet is the main screen for this path. Users choose a letter, and are shown all the inventors which have that letter as the beginning letter of their last name. When users choose a particular inventor, there is a 4-6 paragraph description of a few biographical items, historical context, how they came to discover what they did, and a little about the invention or discovery itself. For every inventor there is a section at the bottom of the page where users can select the inventions of the inventor and explore it in more detail.

II. EVALUATION

A. Software Design

The following criteria have been rated 1-5 on a scale with 5 being the best and 1 being the poorest.

Easy "In"

 5 Users can quickly begin using the program with simple trial and error.
 2 Users can access appropriate level.

You-Are-Here Design

 5 Users can find where they are in the program without feeling lost.

Transparent Interface

 5 Technology is such that users' efforts are devoted to learning the content of the program rather than how to use the software.

Technologically Sound

 5 Program operates bug-free.
 5 Program does not have unexplained system crashes.
 5 It is easy to troubleshoot problems.

B. Multimedia Elements

- **Sound**

The sounds are varied and interesting. They are used to illustrate a concept, or go with a drawing of a machine. They are sophisticated, humorous sounds which add to the already high appeal of this program. The speaking is clear and at a good rate.

- **Still Images**

The drawings and illustrations are of excellent quality, even though they are not photographs. The labeled drawings of such items as batteries, or the inside of a telephone are very clear and easy to decipher.

- **Video Images**

There are 3 types of video images in this program, animation which either provides humor, animation which assists in explaining a machine or concept, and animation which is the primary tool for explaining concepts and machines. All three are very well done and very sophisticated, and all add to the appeal of the program. The video which is "Woolly Mammoth Productions" is accompanied by a voice over with very sophisticated humor which would be difficult to understand. However, the video can be used without the speaking and still help illustrate the principle of science at hand.

- **Text**

The text is made for adults or literate children. It is straightforward, clear, and simple in its syntax, but the vocabulary is both complex and technical. The text is easy to read and is pleasantly presented on the screen. The use of the color red as a signal that the text can be selected for further information is a helpful, easy aide to users, also.

C. Instructional Design

- **Appropriateness for Adult ESL Learners**

This software holds much appeal and promise for the adult ESL learner. First, the content of the program is science in our everyday lives, and is presented in such a fun, non threatening way that it will encourage any reluctant learners. Second, there are many applications in the workplace for the information presented (machines, tools, etc.), so motivation would be high. The very high appeal of the multi-media elements makes this a very good piece for students to practice their literacy skills. The program does assume at least basic literacy; much of the text is not read aloud, and the primary mode of transmitting information is through the text. However, much of the text is accompanied by labeled drawings and video which will aide the emerging literate adult. This CD-ROM allows for much user choice and freedom of exploration. Finally, the icons for the various paths appear on every screen, which makes it a very easy program to navigate with very few English skills.

- **Applications within ESL Curriculum**

This program would be of high interest to any ESL student at the intermediate or above proficiency level to practice listening and reading skills. Specifically, the following basic skills from the College of Lake County Workplace Literacy Curriculum could be practiced using this software:

- Understand main ideas
- Identify key words
- Skim for overview
- Read for specific information
- Connect ideas
- Read a chart

The Way Things Work

ACTIVITY #1: Introductory Lesson

Type of Activity: In Class

Lever of Learner: ESL 3 Intermediate

National Workplace Literacy Learner Objectives

See: Review for *The Way Things Work*

Materials and Resources

- CD-ROM of *The Way Things Work*
- computer with CD-ROM drive

Procedure

1. Teacher shows students how to take a CD out of the plastic box, boot the computer, and put the disc in the CD-ROM drive.
2. Teacher shows students the icon of the CD-ROM on the screen so they know how to check to make sure the computer is reading the software.
3. Teacher opens the CD program by clicking on it.
4. Teacher explains the function of the mouse, to allow you to choose things on a computer screen. Teacher shows the mouse, then moves the mouse around the screen, clicking on different items and selecting them. Teacher teaches the words *mouse*, *click*, and *select* for further reference. For this program the teacher needs to show the students that the cursor changes from an arrow to a hand where there is a hot spot, and that the color red is always a hot spot.
5. Students take turns clicking with the mouse to select items on the screen until everyone has successfully moved around the screen, seen the cursor change to a hand, and chosen something.
6. Teacher explains they will have choices, they can choose where they want to go with this kind of computer program. (Refer to review of *The Way Things Work* for a complete description of each path.)
7. The teacher takes one path and demonstrates what a user can do. Specifically for this program the teacher needs to demonstrate how everything with the color red is a hot spot for this program, point out the movie icon, and model reading all aspects of the screen.

8. The teacher models how to access other paths through the icons at the bottom of the screen.
9. The teacher explains the tools at the bottom of the screen and navigates with each to model how to move around in the program.
10. Individual students choose each of the icons with teacher supervision to access the different paths. Students travel the different paths and ask questions to the teacher as they arise. Each student should have the opportunity to select a path and then return to the main screen.

Evaluation

Each student in class will successfully use the mouse to select a path, read an entry, and return the program to the main screen.

The Way Things Work

ACTIVITY # 2: Exploring machines

Type of Activity: Independent with in-class follow-up

Level of Learner: ESL 3 Intermediate

National Workplace Literacy Learner Objectives

- Understand the main idea
- Read for literal comprehension
- Follow written directions
- Write simple and complex sentences
- Summarize and paraphrase information
- Describe a task
- Connect ideas
- Use a checklist
- Ask for clarification

Materials and Resources

- *The Way Things Work* CD-ROM
- Computer with CD-ROM Drive
- Accompanying activity sheet

Procedure

1. Students complete activity sheet outside of class.
2. Students give short class presentations in class about the machines they researched, using their labeled illustration.
3. Instructor and class will provide appropriate feedback.

Evaluation

Students will deliver coherent presentations that class members can understand and generate questions from. Students are able to respond to questions about their research.

Possible Extensions

1. Students could repeat this activity with other machines.
2. Students could repeat this activity working in pairs or small groups.
3. Students could complete the activity sheet with illustration but not deliver a prepared speech. Rather they would show the illustration and take impromptu questions from class members.

*Activity Sheet for
The Way Things Work, Activity #2*

Directions

1. Turn on the computer.
2. Put in the CD-ROM for *The Way Things Work*
3. Click on **Machines** on the side of the screen.
4. Choose a machine to read about. Click on it and read about it.
5. Draw a picture of this machine on the back of this paper and label the important parts.
6. Practice telling someone about this machine. In class you will tell your classmates about this machine using the picture you drew on the back of this paper. You will talk for about 2 minutes. Be sure to answer the following questions when you talk to the class:
 - When do you use this machine?
 - What does it do?
 - What materials do you use it with?
 - Do you use this machine at your workplace?

The Way Things Work

ACTIVITY # 3: Describing and Distinguishing Machines

Type of Activity: In-class

Level of Learner: ESL 3 Intermediate

National Workplace Literacy Learner Objectives

- Understand the main idea
- Read for literal comprehension
- Summarize and paraphrase information
- Describe a task
- Connect ideas
- Work cooperatively

Materials and Resources

- *The Way Things Work* CD-ROM
- Computer with CD-ROM Drive
- Accompanying activity sheet

Procedure

1. Teacher opens *The Way Things Work* program to main screen.
2. Teacher chooses machines, then D for drills.
3. Teacher points out that there are 2 drills on the screen, and asks class how these drills are same and different.
4. Class generates a list for both similarities and differences.
5. Together class reads and discusses entries for both types of drills.
6. Class returns to original question and reviews lists they generated.
7. Class breaks into small groups and works on an oral explanation of how these drills are similar and different.
8. Each group presents their ideas to the class. Class discusses.

Evaluation

Students will participate in discussion in both large group and small group, and present orally to class their group's findings.

Possible Extensions

1. Class could be divided into half and each half responsible to research one type of drill outside of class. Then in class students would give each other information about the drill they read about, and in pairs generate a list of similarities and differences.
2. Students could choose other machines which they use in their workplace and repeat the activity.

The Way Things Work

ACTIVITY # 4: Writing About Machines

Type of Activity: Independent

Level of Learner: ESL 3 Intermediate

National Workplace Literacy Learner Objectives

- Understand the main idea
- Read for literal comprehension
- Follow written directions
- Write simple and complex sentences
- Summarize and paraphrase information
- Connect ideas

Materials and Resources

- *The Way Things Work* CD-ROM
- Computer with CD-ROM Drive
- Accompanying activity sheet

Procedure

1. Students complete activity sheet outside of class.
2. Instructor will provide appropriate feedback.

Evaluation

Students will write coherent legible sentences telling about their machines. Students are able to respond to questions about their research.

Possible Extensions

1. Students could repeat this activity with other machines.
2. Students could repeat this activity working in pairs or small groups.
3. Students could give an oral presentation to their classmates about their machine.

*Activity Sheet for
The Way Things Work, Activity #4*

Directions

1. Turn on the computer.
2. Put in the CD-ROM for *The Way Things Work*
3. Click on **History** on the side of the screen.
4. Find the year you were born. Click on the machine closest to that year.
5. Read about it and take notes.
6. Write about this machine below in complete sentences. Be sure to answer the following questions:
 - What year was this machine invented?
 - When do you use this machine?
 - What does it do?
 - What materials do you use it with?
 - Do you use this machine at your workplace?

MACHINE: _____

The Way Things Work

ACTIVITY # 5: Writing About Inventors

Type of Activity: Independent in pairs

Level of Learner: ESL 3 Intermediate

National Workplace Literacy Learner Objectives

- Understand the main idea
- Read for literal comprehension
- Follow written directions
- Write simple and complex sentences
- Summarize and paraphrase information
- Connect ideas

Materials and Resources

- *The Way Things Work* CD-ROM
- Computer with CD-ROM Drive
- Accompanying activity sheet

Procedure

1. Students complete activity sheet outside of class.
2. Instructor will provide appropriate feedback.

Evaluation

Students will write coherent legible sentences telling about their inventors. Students are able to respond to questions about their research.

Possible Extensions

1. Students could repeat this activity with other inventors.
2. Students could give an oral presentation to their classmates about their inventor.

*Activity Sheet for
The Way Things Work, Activity #5*

Directions

1. Turn on the computer.
2. Put in the CD-ROM for *The Way Things Work*
3. Click on **Inventors** on the side of the screen.
4. Choose a letter to explore. Choose an inventor to read about.
5. Read and take notes.
6. Write about this inventor below in complete sentences. Be sure to answer the following questions:
 - Who is this inventor?
 - When did she/he live?
 - Where did she/he live?
 - What machine or idea did they develop or invent?
 - Why or how did they invent it?
 - Do you use their discovery in your work or at home?

The Way Things Work

ACTIVITY # 6: Researching Information about Machines and Tools in the Workplace

Type of Activity: In Class

Level of Learner: ESL 3 Intermediate

National Workplace Literacy Learner Objectives

- Understand the main idea
- Read for literal comprehension
- Give and respond to feedback
- Ask for clarification
- Make lists
- Summarize and paraphrase information
- Use basic sentence patterns and forms

Materials and Resources

- *The Way Things Work* CD-ROM
- Computer with CD-ROM Drive

Procedure

1. The teacher asks students to choose a machine or tool they work with in their workplace and either bring it to class or a photograph or drawing of the machine. The teacher asks each student to bring their machine or tool on a specific day.
2. The first day someone is assigned to bring their machine, the student shows the machine or tool to the class and tells what they know about it.
3. The teacher writes down questions students have about the machine before the computer is turned on.
4. Next the student leads the class in a computer search through *The Way Things Work* to find out more about the machine.
5. The teacher acts as a scribe for the class as they contribute ideas they have gleaned from the text. Teacher writes students' contributions on an overhead or chalkboard.
6. The class reviews what they learned from the computer program by reading what the teacher has written.

7. The class creates sentences together generated from the teachers' notes that tell more about the machine.

Evaluation

Students will participate in the computer search, the class discussion, and creation of sentences from class notes.

Possible Extensions

1. Students would repeat this activity with all other students' machines.
2. Students could take turns being the scribe after the teacher models the process.
3. Students could visit the workplace to see the larger machines and look for simple machines within the complex machines. They could photograph or sketch the machines or tools. They would then return to the classroom and research the simple machines with the computer program.
4. Students could draw and label an illustration of their tool or machine.

*My First
Incredible
Amazing
Dictionary*

CD-ROM Review

Name of Program: My First Incredible Amazing Dictionary	
Version: 1.0	Producer: Dorling Kindersley
System Requirements: 386 SX, VGA, CD-ROM drive, 4MB of RAM, Windows 3.1	
Type of Program: multi-media	
Documentation Included: None	
Recommended Size of Group: individual or small group	

I. PROGRAM DESCRIPTION AND ORGANIZATION

My First Incredible Amazing Dictionary is a multi-media dictionary with over 1,000 first words and their meanings with illustrations, video, and sounds.

PATHS AND TOOLS

When the main menu appears, a voice says, "Click on anything red to start." There are 2 two basic paths for the user. At the top of the screen the alphabet appears in red. When the user chooses a letter, the screen will show all the entries for that letter, with a word and picture for each. The user can then choose whichever entry she/he desires.

When an individual entry appears, the user sees the word written in very large colored font. There is also either a photo or drawing illustrating the word. Directly below the word is a sentence defining the word. In front of the sentence is a trumpet. When the user clicks on the trumpet, a voice clearly reads the definition. There are sometimes words in red in the definition. If a user clicks on those individual words, a small box appears to the right of the sentence illustrating that word. If a user clicks on that box, it will take him/her to that individual entry for further elucidation of that word. For each individual entry the user can also click on the word to hear it, and click on the illustration and watch something happen to it. For example, when a user clicks on the picture for the entry for dandelion the dandelion flower goes to seed. The user can easily understand what is available on these individual entries because the arrow for the mouse changes to a pointing finger when there is a "live" spot on the screen.

There are also cross references and see-also entries for all entries. They appear at the bottom of the screen in a small red box. The user may either read it or choose it by clicking and go to that related entry.

In addition to the alphabet, there are other choices for users. These appear in a row at the bottom of the screen when the main menu appears. They are accompanied by an icon which is related to what the buttons do. They are:

- **SURPRISE ME**

If a user chooses this option, a drum roll opens a surprise entry, one of the entries of the dictionary for the user to enjoy.

- **BACKTRACK**

This feature shows the user a picture of all the entries that have been visited for this current session. The users can then click on a picture of one of the former entries and revisit it if they wish.

- **GAMES**

There are 3 choices that appear if a user chooses this path. They are:

- **Guess What?**

Users read the questions, then guess the answer by checking on a picture of one word. The answer is shown whether it is right or wrong.

- **Spell It**

Users click on the picture. A voice pronounces it. Users then click on the letters to spell the word. They have 6 chances to spell it, then the program finishes the word. There are 3 levels of difficulty a user can choose when beginning the game.

- **What's That Noise?**

There are 5 sounds behind pictures of five question marks. Users click on the question mark to hear the sound, then choose the picture they think makes the sound.

- **QUICK SEARCH**

Here users can choose a word from the alphabetical list of dictionary entries, or type in a word. The program takes them to the word if it is an entry.

- **OPTIONS**

Here the user can choose Help for Parents (an explanation of the basic operating instructions of the program), Print, Printing Settings, or Copy.

- **QUIT**

This is a picture of the door and allows the user to leave the program, but not before asking the user if they are sure they want to quit.

II. EVALUATION

A. Software Design

The following criteria have been rated 1-5 on a scale with 5 being the best and 1 being the poorest.

Easy "In

- 5 Users can quickly begin using the program with simple trial and error.
 3 Users can access appropriate level. (Only available on spelling game.)

You-Are-Here Design

- 5 Users can find where they are in the program without feeling lost.

Transparent Interface

- 5 Technology is such that users' efforts are devoted to learning the content of the program rather than how to use the software.

Technologically Sound

- 5 Program operates bug-free.
 5 Program does not have unexplained system crashes.
 5 It is easy to troubleshoot problems.

B. Multimedia Elements

- **Sound**

This program contains many bells and whistles, applause and cheering crowds. It does add to the high appeal of the program and does not detract from the content of the entries. In addition, these sounds are used many times to either define or exemplify the entries. Sound is also used extensively when a voice reads everything that is printed. The quality of the sound is excellent. The speaker reads clearly and slowly.

- **Still Images**

The photographs of the entries aides comprehension immensely. The quality of the photographs is excellent and is much larger than most print photo dictionaries.

- **Video Images**

There are many short animations which add to the overall appeal of the program, and sometimes aides the user in comprehending some aspect related to the entry. There are many fun animations throughout the program.

- **Text**

The text is very appealing with its wide use of colors and fonts. Most important, the size of the text is quite large, clearly arranged on the screen, and is easy to read.

C. Instructional Design

- **Appropriateness for Adult ESL Learners**

The high appeal of this program makes it very attractive for use with the adult ESL learner. It provides for a safe, fun learning environment that learners can access quickly and use efficiently. It allows learners to make choices about the type of activity as well as individual entries. The excellent voice quality of the reading of the entries and words makes it a good model for pronunciation and speaking in general. Students can listen to short sentences and visually check their comprehension with the illustrations. This program has many multi-media elements which will aide the second language learner in comprehension, and it is a very intuitive and fun program to use.

- **Applications within ESL Curriculum**

In general, this program can be used to strengthen listening, speaking, and reading skills. Specifically, the following tasks from the College of Lake County Workplace Literacy Curriculum can be practiced using this CD-ROM:

- Effective Listening
- Understanding Intonation and Stress
- Producing Sounds
- Identify Key words
- Understand Main Ideas
- Skim for overview
- Read for specific information
- Order Lists Alphabetically
- Identify Familiar Words

My First Incredible Amazing Dictionary

ACTIVITY #1: Introductory Lesson

Type of Activity: In Class

Lever of Learner: ESL 2 High Beginning
ESL 3 Intermediate

National Workplace Literacy Learner Objectives

See: Review for *My First Incredible Amazing Dictionary*

Materials and Resources

- CD-ROM of *My First Incredible Amazing Dictionary*
- computer with CD-ROM drive

Procedure

1. Teacher shows students how to take a CD out of the plastic box, boot the computer, and put the disc in the CD-ROM drive.
2. Teacher shows students the icon of the CD on the screen so they know how to check to make sure the computer is reading the software.
3. Teacher opens the CD program by clicking on it.
4. Teacher explains the function of the mouse, to allow you to choose things on a computer screen. Teacher shows the mouse, then moves the mouse around the screen, clicking on different items and selecting them. Teacher teaches the words *mouse*, *click*, and *select* for further reference. For this program the teacher needs to show the students that the cursor changes from an arrow to a hand where there is a hot spot, and that the color red is always a hot spot.
5. Students take turns clicking with the mouse to select items on the screen until everyone has successfully moved around the screen, seen the cursor change to a hand, and chosen something.
6. Teacher explains they will have choices, they can choose where they want to go with this kind of computer program. (Refer to review of *My First Incredible Amazing Dictionary* for a complete description of each path.)
7. The teacher takes one path, the ABC's at the top of the screen, and demonstrates what a user can do. Specifically for this program the teacher needs to explain how to use all the features when looking at a dictionary

entry. The teacher should demonstrate the trumpet to hear the sound, click on the illustration to show how each illustration is animated, and show how the red words in the definitions can be selected and a box appears. Users can either just look at the picture in the box, or if they need more help understanding the word, click on the box and the entry for that word will appear. Finally the teacher should bring to the students' attention the box labeled "Show More Words" that users see when browsing through some of the letters of the alphabet that have more than one screen of entries so students will understand there may be more words for a letter than what appears on one screen at a time.

8. The teacher models how to access other paths through the icons at the bottom of the screen. The teacher also explains the connection between the icon and the button's function (the footprints "walk" the user through all the previous articles, etc.). Activity #5 for this CD could be used in the next teaching session to introduce the games for this program.

9. Individual students choose each of the buttons with teacher supervision to access the different paths. Students travel the different paths and ask questions to the teacher as they arise. Each student should have the opportunity to select a path and then return to the main screen.

Evaluation

Each student in class will successfully use the mouse to select a path, read an entry, and return the program to the main screen.

My First Incredible Amazing Dictionary

ACTIVITY #2 : Exploring New Words

Type of Activity: Independent

Level of Learner: ESL 1 Literacy Beginning
ESL 2 High Beginning

National Workplace Literacy Learner Objectives

- Understand the main idea
- Read for specific information
- Identify key words
- Follow written directions
- Print or write simple information

Materials and Resources

- *My First Incredible Amazing Dictionary*
- Computer with CD-ROM Drive
- Accompanying Activity Sheet

Procedure

1. Students complete activity sheet.
2. Students give completed sheet to instructor.
3. Instructor provides appropriate feedback and editing on sheet.

Evaluation

Students will have completed the sheets, which means they have successfully accessed the information in the computer program. Completed sheets will have legible writing and accurate copying of definitions.

Possible Extensions

1. Students could repeat this exercise with new words.
2. Students could work in pairs to complete the exercise.
3. Students could choose one word they learned, and define the word for the class. They could use whatever visual aides they need to help the class understand the word.

*Activity Sheet for
My First Incredible Amazing Dictionary, Activity #2*

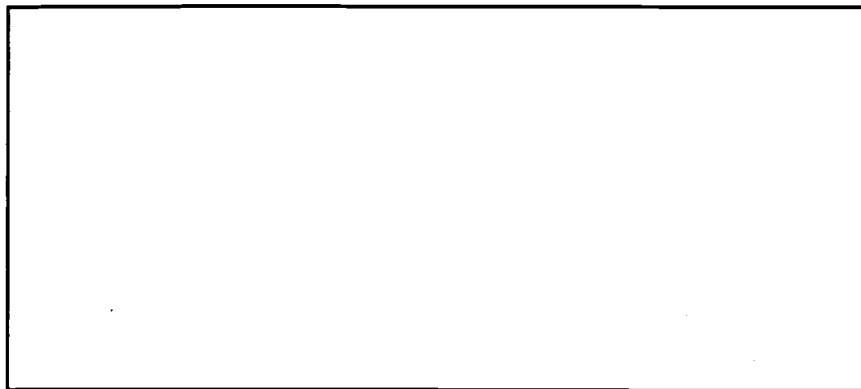
Directions

1. Turn on the computer.
2. Put in the CD-ROM for *My First Incredible Amazing Dictionary*.
3. Find the **ABC's** at the top of the screen.
4. Click on one letter.
5. Find a word you **DON'T** know.
6. Click on it.
7. Read about it. Click on the picture, too.
8. Copy the definition of the word below.
9. Draw a picture of the word below the definition.
10. Repeat this until you have 3 new words.

WORD: _____

Definition _____

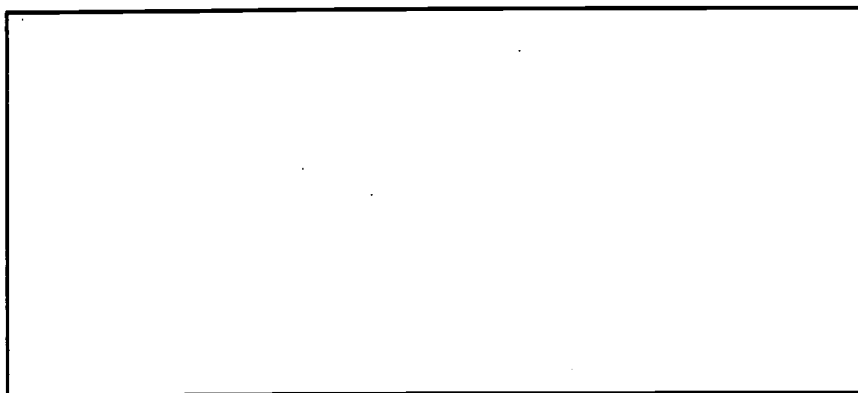
Picture:



WORD: _____

Definition _____

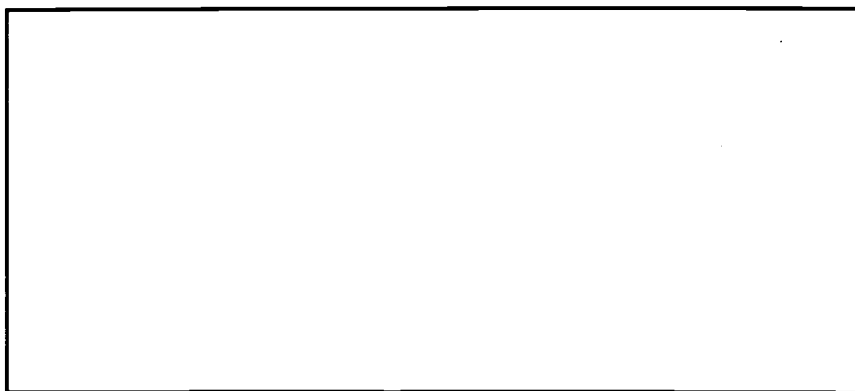
Picture:



WORD: _____

Definition _____

Picture:



My First Incredible Amazing Dictionary

ACTIVITY #3 : Describing Similarities and Differences

Type of Activity: Independent in pairs or small group with in-class follow-up

Level of Learner: ESL 2 High Beginning
ESL 3 Intermediate

National Workplace Literacy Learner Objectives

- Understand the main idea
- Read for specific information
- Follow written directions
- Identify key words
- Print or write simple information
- Make a list
- Work cooperatively in groups

Materials and Resources

- My First Incredible Amazing Dictionary
- Computer with CD-ROM Drive
- Accompanying Activity Sheet

Procedure

1. Students complete activity sheet in pairs or small groups.
2. Students give completed sheet to instructor.
3. Instructor provides appropriate feedback and editing on sheet.

NEXT SESSION

4. Class discusses in large group more pairs of words that are similar yet distinctive that are confusing to them in their workplace. Students work in cooperative groups to make lists of similarities and differences similar to the independent activity.
5. Groups share their results with the class.

Evaluation

Students will have completed the sheet, which means they have successfully accessed the information in the computer program. Completed sheets will have legible writing and accurate lists of similarities and differences.

Possible Extensions

1. The class could look at the entries on the program and try to find more pairs that are similar in some properties but distinctive in others, and repeat the exercise as a whole class activity.

Activity Sheet for
My First Incredible Amazing Dictionary, Activity #3

Directions:

1. Turn on the computer.
2. Put in the CD-ROM for *My First Incredible Amazing Dictionary*.
3. Click on **Quick Search** at the bottom of the screen.
4. Find the following words: **SCREW** and **NAIL**
5. Read about each one, then write below.

Screw: What is it? _____

Nail: What is it? _____

SCREW and NAIL

How are they the same?

How are they different?

Now turn over the paper and repeat this with 2 new words.

1. Find the following words: **Metal** and **Plastic**
2. Read about each one, then write below.

Metal: What is it? _____

Plastic: What is it? _____

Metal and Plastic

How are they the same?

How are they different?

My First Incredible Amazing Dictionary

ACTIVITY #4 : Learning Safety Vocabulary

Type of Activity: Independent with in-class follow-up

Level of Learner: ESL 2 High Beginning
ESL 3 Intermediate

National Workplace Literacy Learner Objectives

- Understand the main idea
- Read for specific information
- Follow written directions
- Identify key words
- Write common and technical words

Materials and Resources

- *My First Incredible Amazing Dictionary*
- Computer with CD-ROM Drive
- Accompanying Activity Sheet

Procedure

1. Students complete activity sheet in pairs or small groups.
2. Students give completed sheet to instructor.
3. Instructor provides appropriate feedback and editing on sheet.

NEXT SESSION

4. Students share their drawings and discuss safety issues with the class.

Evaluation

Students will have completed the sheet, which means they have successfully accessed the information in the computer program. Completed sheets will demonstrate understanding of safety vocabulary.

Possible Extensions

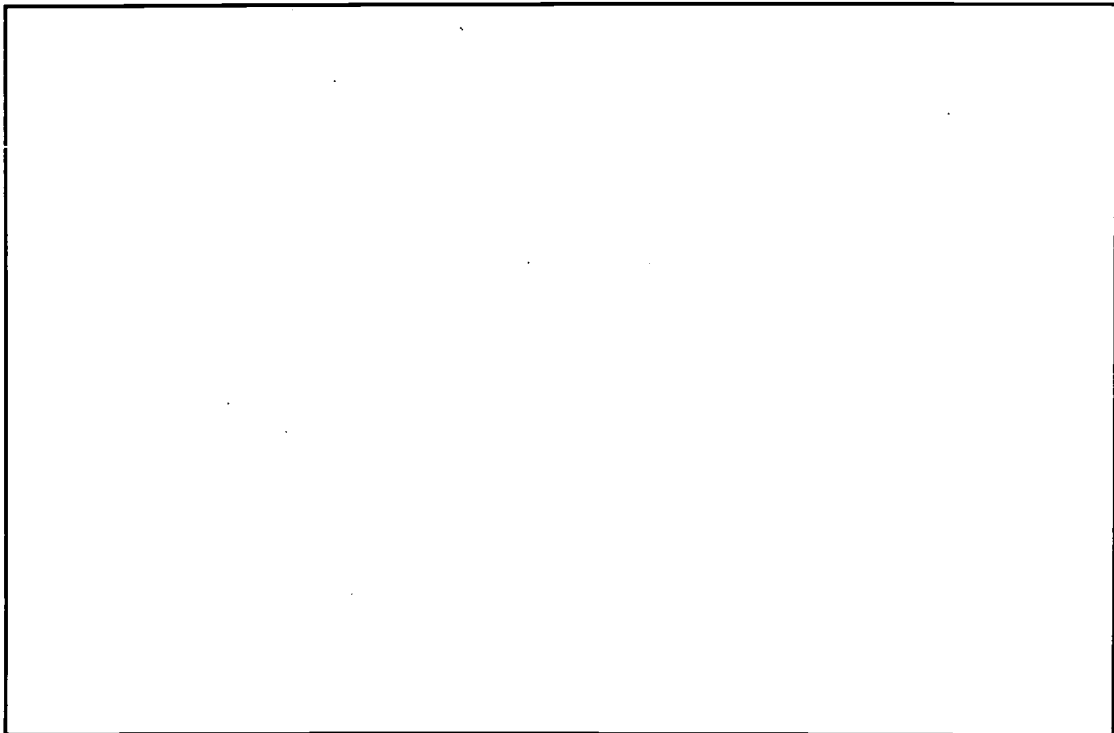
1. Students could work in groups in class to draw more examples of possible injuries on the job. Then the class could discuss safety precautions which would prevent the injuries.
2. Students could label their drawings with key safety words, then make sentences about the situation using the key words.

3. The teacher could make overhead copies of the labeled drawings for discussion in class.

*Activity Sheet for
My First Incredible Amazing Dictionary, Activity #4*

Directions

1. Turn on the computer.
2. Put in the CD-ROM for *My First Incredible Amazing Dictionary*.
3. Click on the **ABC's** at the top of the screen.
4. Choose the letters to you need to find the following words:
 - Injure
 - Bandage
 - Ladder
 - Vacuum cleaner
 - Accident
5. Read about each one.
6. Draw a picture below that shows an accident with a ladder OR vacuum cleaner . Draw a bandage on the person who is injured.



My First Incredible Amazing Dictionary

ACTIVITY #5 : Cooperative Game Playing

Type of Activity: Whole class

Level of Learner: ESL 1 Literacy Beginning
ESL 2 High Beginning

National Workplace Literacy Learner Objectives

- Understand the main idea
- Read for specific information
- Identify key words
- Ask and respond to questions
- Active listening

Materials and Resources

- My First Incredible Amazing Dictionary
- Computer with CD-ROM Drive

Procedure

1. Teacher asks students to work in pairs or teams and gather around the computer monitor.
2. Teacher chooses one of the 3 games from the **Games** button.
3. Teacher begins the game by choosing a group or pair to answer.
In **Guess What?** the class votes on the correct answer before someone chooses one with the mouse.
In **Spell It** the group decides on letters to complete the word as a group.
In **What's that Noise?** the class describes what they hear before choosing the accompanying picture.

Evaluation

Students will participate in the group activity, offering words and descriptions with their group and the entire class where appropriate.

Possible Extensions

These games can be played numerous times in class for various reasons and with various levels of difficulty.

Community Exploration

CD-ROM Review

Name of Program: Community Exploration	
Version: 1.0	Producer: Contér
System Requirements: 386 SX, VGA, CD-ROM drive, 6MB of RAM, Windows 3.1	
Type of Program: Multi-Media	
Documentation Included: phamplet in CD Case, on-line User's Guide	
Recommended Size of Group: individual	

I. PROGRAM DESCRIPTION AND ORGANIZATION

Community Exploration is a language building tool that focuses on lifestyles in an American community named Cornerstone. After students have signed in, the main screen appears, which is a map of Cornerstone. Users can click on one of the many places on the map and explore many buildings in the town, such as a school, a fast food restaurant, or a police station.

TOOLS

The pointer which follows the movement of the mouse changes into different icons as the user moves the mouse around the screen. The shapes tell how it can be used. The following shapes have the following uses:

- The pointing hand chooses an activity.
- The arrow opens menus, chooses items from menus, and clicks on-screen buttons.
- The I Beam is used for typing.
- The wristwatch shows that the computer is operating.
- The pinwheel is the discovery pointer. Here users can learn more about persons, places, or things.
- The magnifying glass is the explore pointer. Here the user can take a more detailed look at a place.

PATHS

There are two paths for this program, discovery hotspots and explore hotspots.

The pinwheel is the discovery pointer. Here users can learn more about persons, places, or things. A label window, sound effect, thought bubble, and/or animation is shown to help the student learn more about the item.

and/or animation is shown to help the student learn more about the item. For each item that is a hotspot with a pinwheel, the printed word is shown in a box, and a voice says the word clearly. The user can then click on an arrow, which will take them to another box with a sentence which either defines the word or uses the word in a sentence. Users can click on an icon of headphones to hear the sentences read. There are sometimes additional arrows at the right side of the box which, when selected, lead to more sentences about the word. The user can also choose the tape recorder icon to record their voice reading the sentence or saying the word, and then choose the speaker icon to hear their recording. (This is only possible, of course, with computers equipped with a microphone.) Users can also choose to save the recording to listen to later.

If students wish to learn more about the item, students click on an explore hotspot (a place), and move to the next level and explore the place in greater detail. Here users travel inside the buildings and see different places within the building, such as a gym and library inside a school. At this level students can again access the discovery pinwheel and read and record words and phrases.

In addition to the two paths, users can play the Name It! game to test their ability to name the objects, people, and places shown on the screen. Students can choose from different levels of difficulty and if they prefer to use a timer or not to play the game. A picture is highlighted and flashes, then 4 written words appear. Users can click on the word to hear it, then click on the box in front of the correct word. At the end of the game there is immediate feedback with statistics on the number correct and time used. In addition, there are 2 lists of words, "Words You Know Well", and "Words To Practice".

Finally, there is a student tracking system for teachers that allows them to view student work. At the main screen there is an icon of a file. Teachers can click on this, type a password, then view, print, and add information for each user. Teachers can also print a brief report that lists the work files the user has practiced and identifies the amount of time users spend on various activities.

II. EVALUATION

A. Software Design

The following criteria have been rated 1-5 on a scale with 5 being the best and 1 being the poorest.

Easy "In"

 3 Users can quickly begin using the program with simple trial and error.

4 Users can access appropriate level. (For the Name It! game only.)

You-Are-Here Design

3 Users can find where they are in the program without feeling lost.

Transparent Interface

4 Technology is such that users' efforts are devoted to learning the content of the program rather than how to use the software.

Technologically Sound

3 Program operates bug-free.

5 Program does not have unexplained system crashes.

2 It is easy to troubleshoot problems.

B. Multimedia Elements

• Sound

There are a few sound elements that extend the learning experience, such as crowd noises in the hallway of a school or the sound of a cash register ringing up a sale. However, sound is used most effectively as a learning tool for second language learners through the voice reading all the vocabulary words and accompanying sentences. The voices are clear and natural, and read at a comfortable speed for ESL learners. There is also a variety of speakers on the recordings.

A unique and very helpful self-learning tool in this program is the record feature that users can employ. This allows students to listen to the native speaker, record their voice repeating after the speaker, then listen to their recording and evaluate their performance immediately by comparing it to the native speaker voice again. Students wishing to improve their overall fluency as well as particular pronunciation would benefit greatly from this feature.

• Still Images

The illustrations for the vocabulary are only cartoon-like drawings for this software. These drawings are not very sophisticated and can be ambiguous and confusing. These renderings are not of a high quality and are a major drawback of this software. When users play the Name It! game at the main screen level, it is difficult to distinguish the various buildings from the drawings. The library, the post office, and the school, for example, look quite similar. This is not such a problem when users play the game when they are visiting a particular setting, because those items are easy to distinguish.

• Video Images

There are very few video images in this multi-media software, and they are not used to enhance comprehension of the text. Community Exploration was one of the first CD-ROM programs for ESL learners on the market, and it is not nearly as sophisticated as any of the other CD-ROM programs reviewed here.

- **Text**

The text is of an acceptable size, and the sentences that follow the words are easy enough to read. The sentences are of a mixed quality in regard to their aide in constructing meaning for the language learner. Many sentences are only tangentially linked to the initial vocabulary item, while others are definitions with the word in the sentence. This would cause confusion for the beginner. In addition, the length of the some of the sentences is questionable. It is difficult to imagine beginning level ESL students being able to repeat such lengthy sentences.

C. Instructional Design

- **Appropriateness for Adult ESL Learners**

This program is most appropriate for adult ESL learners. Indeed, it was specifically written for ESL learners, one of a small handful of such pieces. In addition, adults would be most comfortable with the format, the user interface, and illustrations. It is most appropriate for beginning level ESL learners, because its greatest strength lies in the practice it offers beginners with basic vocabulary in a context. It provides privacy to practice basic vocabulary, and the immediate feedback built in to the Name It! game would provide adult learners with helpful information. When users pull down the Help menu, they can also choose to either show or hide the words on the screen. This option gives learners an important choice when learning independently. While it does not have the visual or aural appeal or variety of paths of any of the other CD-ROMs reviewed, it does offer valuable independent practice in basic vocabulary for the ESL learner.

- **Applications within ESL Curriculum**

In general, this CD-ROM could be used to enhance beginners vocabulary skills, listening and speaking skills at both the word and sentence level. Specifically, it could be used to practice these Learner Objectives from the College of Lake County Workplace Literacy Curriculum:

- Effective Listening
- Listen for Key Words
- Understanding Intonation and Stress
- Producing Sounds
- Identify Key Words
- Identify Familiar Words
- Hearing Sounds

Community Exploration

ACTIVITY #1: Introductory Lesson

Type of Activity: In Class

Lever of Learner: ESL 1 Literacy-Beginning

National Workplace Literacy Learner Objectives

See: Review for *Community Exploration*

Materials and Resources

- CD-ROM of *Community Exploration*
- Computer with CD-ROM drive

Procedure

1. Teacher shows students how to take a CD out of the plastic box, boot the computer, and put the disc in the CD-ROM drive.
2. Teacher shows students the icon of the CD-ROM on the screen so they know how to make sure the computer is reading the software.
3. Teacher opens the CD program by clicking on it.
4. Teacher signs in at the first screen of the program. Each student should also in turn sign their name into the program for record keeping purposes.
5. Teacher explains the function of the mouse, to allow you to choose things on a computer screen. Teacher shows the mouse, then moves the mouse around the screen, clicking on different items and selecting them. Teacher teaches the words *mouse*, *click*, and *select* for further reference. The cursor changes to a pinwheel and magnifying glass for this program and each icon takes the user on a different path. Teacher should demonstrate both. (See review of *Community Exploration* for a complete description of the paths and tools.)
6. Teacher pulls down the **HELP** menu and chooses **ICON HELP**. Teacher goes through each icon, reading the explanation for each and illustrating in the program.
7. Students take turns clicking with the mouse to select items on the screen until everyone has successfully moved around the screen and chosen something.
8. The teacher models how to choose an area on the map and name it using the pinwheel, or go into more extensive descriptions of the area using the

magnifying glass. The teacher should model how to pull down the **HELP** menu and select **Show** or **Hide Words**.

9. The teacher demonstrates how to listen to the speaker, record her/his voice, save the recording, and compare the 2 versions.

10. Individual students record, save, and compare their voices. All students should have the opportunity to do this.

11. Teacher models how to play the **Name It!** game. Teacher should make sure students understand they can click on the words they are given as choices to hear them as an aide to selecting the correct word.

Evaluation

Each student in class will successfully sign into the program, use the mouse to select both paths, do what is possible at that screen, record and save their voices, and exit the program.

Community Exploration

ACTIVITY #2 : Learning Basic Vocabulary

Type of Activity: In-Class Modeling and Individual Follow-Up

Level of Learner: ESL 1 Literacy-Beginning

National Workplace Literacy Learner Objectives

- Active listening
- Identify key words
- Hearing sounds
- Identify familiar words
- Make Lists

Materials and Resources

- Community Exploration CD-ROM
- Computer with CD-ROM Drive

Procedure

1. Teacher models for students how to turn on the computer and open the program.
2. Teacher models how to choose a place on the map to study the vocabulary, then plays the **Name It** game.
3. Teacher demonstrates writing the word lists on the activity sheet.
4. Teacher gives students activity sheets.
5. Students complete sheet outside of class and return to teacher.
6. Teacher accesses the student records on *Community Exploration* to decide which students need more practice, which students need to practice different things, and which are making progress in general.

Evaluation

Students will have successfully completed the task if they turn in completed activity sheets to their instructor. Teacher examination of the student records will also help teachers evaluate progress of individual learners..

Possible Extensions

1. Students could exchange word lists and generate sentences from list of familiar words.
2. Students could write a sentence on the overhead using a word from their "Words to Practice" list.

*Activity Sheet for
Community Exploration, Activity #2*

Directions

1. Turn on the computer.
2. Open the program of **Community Exploration**.
3. Choose an area on the map to explore with the magnifying glass.
4. Practice reading and saying the words.
5. When you are ready, play the **Name It** game.
6. Copy the lists of words below.

Words you Know Well

Words to Practice

Community Exploration

ACTIVITY #3 : Pronouncing words and sentences

Type of Activity: In-Class Modeling and Individual Follow-Up

Level of Learner: ESL 1 Literacy-Beginning

National Workplace Literacy Learner Objectives

- Active listening
- Identify key words
- Hearing sounds
- Understanding intonation and stress
- Producing sounds

Materials and Resources

- Community Exploration CD-ROM
- Computer with CD-ROM Drive

Procedure

1. Teacher models for students how to turn on the computer and open the program.
2. Teacher models how to choose a place on the map to study the vocabulary.
3. Teacher demonstrates how to listen to the word and sentences being read, record your own voice, save it, and then listen to the model again to compare.
4. Teacher assigns students to a certain amount of time to practice their pronunciation within a given time frame.
5. Students practice pronouncing words and sentences outside of class.
6. Teachers access the student records on *Community Exploration* to decide which students need more practice, which students need to practice different things, and which are making progress in general.

Evaluation

Teacher examination of the student recordings will help teachers evaluate progress of individual learners.

Possible Extensions

1. The class could practice their pronunciation together in class with the teacher choosing the vocabulary that is most useful or needed. Students would repeat after the recorded voice, and could take turns recording their readings on the computer.

*First
Connections:
The Golden
Book
Encyclopedia*

CD-ROM Review

Name of Program: First Connections: The Golden Book Encyclopedia	
Version: 1.0	Producer: Jostens Learning
System Requirements: 386 SX, VGA, CD-ROM drive, 6MB of RAM, Windows 3.1	
Type of Program: multi-media	
Documentation Included: user's manual, teacher's guide, poster	
Recommended Size of Group: individual or small group, whole class with teacher assistance	

I. PROGRAM DESCRIPTION AND ORGANIZATION

This multi-media encyclopedia emulates beginning print encyclopedias. but has the important additional attributes of sound, video, and still images that multi-media provides.

TOOLS

There are six small pictures along the side of the screen. Each tool helps users explore the encyclopedia. Following is a description of each tool and what happens when a user chooses it.

The first tool is a miniature of the main menu. Clicking this makes the main menu appear on the screen. Second is the path button. If you choose this while you are reading an article, this takes you back along the path you used to get to the current article. The tracker button is represented by a magnifying glass. If a user chooses this button, it will show a list of all the articles you have visited in that session. The next button is a book with a bookmark in it. Choosing this enables you to mark an article so you can come back to it later. The next button is a notebook and pencil. This allows you to take notes that you can both save and print. The last button is a picture of a robot. Clicking on this button enables the user to listen to portions or all of an article being read aloud.

PATHS

There are 4 path choices on the main screen:

- World of Words
- Sights and Sounds
- Seek and Find

The **World of Words** pathway provides a browser for users to explore different topics. A map of a town appears, and there are labels for various sections such as farm, learning center, town, arts center, etc. The user can click on any area of interest and then choose from among the topics listed under each category. This pathway could provide exploration time for users who are interested in just reading about a topic with no specific topic in mind.

The **Sights and Sounds** pathway provides the user with an opportunity to browse through the movies (really animation), speeches of famous people, maps, and sounds that are parts of the articles within the encyclopedia. There is a bookcase from which to choose a category, and listings under each category. When the movie or sound is playing, there a citation for the article from which it is taken visible on the screen.

Seek and Find is a pathway for curious questioners. Behind a door that looks like a library there are pictures with labels which is the table of contents for the questions. If you choose the topic Food, for example, a list of questions appears. Each topic has three to six questions.

ABC's is the pathway most familiar to encyclopedia users. It works much like a key word search, with the letters of the alphabet in colored blocks and an icon that starts with the letter as an aide to users. This lists the articles in alphabetical order. To see the list of articles for a particular letter, click a letter in a box.

II. EVALUATION

A. Software Design

The following criteria have been rated 1-5 on a scale with 5 being the best and 1 being the poorest.

Easy "In"

 5 Users can quickly begin using the program with simple trial and error.
 5 Users can access appropriate level.

You-Are-Here Design

 4 Users can find where they are in the program without feeling lost.

Transparent Interface

 5 Technology is such that users' efforts are devoted to learning the content of the program rather than how to use the software.

Technologically Sound

 5 Program operates bug-free.

5 Program does not have unexplained system crashes.

5 It is easy to troubleshoot problems.

B. Multimedia Elements

- **Sound**

There are over 500 sound features such as animal sounds, musical excerpts, and speeches. However, the most important sound features are the oral instructions for users and the robot tool button which will read articles aloud to users. The first sound element, the oral instructions, is an invaluable help to both limited English speakers and adult learners with low literacy skills. The user is prompted at each path by a voice which gives directions clearly and simply. For example, at the main menu the voice automatically says, "Do you now how you want to use the encyclopedia? Click a pathway to find articles." This features makes this encyclopedia a much more accessible tool for adult ESL learners than the traditional print encyclopedia.

The second element, the robot read-aloud of the articles, should be a wonderful addition, also. However, the robot sounds like a robot's voice. It lacks variation in pitch and its junctures are very stilted and unnatural. The result is a voice which is difficult to understand at times and unrealistic at best. This feature should have been a great addition for adult ESL learners, but is disappointing in its limitations.

- **Still Images**

There are over 1,500 articles which contain over 200 tables and 2,700 pictures and 200 maps. They are of excellent quality and enhance the printed words greatly. These visual images will provide both enjoyment and comprehension aides for the adult ESL learner.

- **Video Images**

There are over 100 movies, or animation sequences that accompany the articles. They range from space ships taking off to animals moving about. They are of good quality and do enhance the articles in which they appear.

- **Text**

The size of font for the articles makes it easy to read. Because the encyclopedia was made with emerging readers in mind, the layout of the articles is very clear with many headings and changes in font color to signal different sections of the articles. The text uses basic vocabulary and straightforward syntax without compromising the content of the articles. All of these elements make the text appealing to the user and, most important, aide the user in comprehending the text.

C. Instructional Design

- **Appropriateness for Adult ESL Learners**

This CD-ROM is an excellent tool for adult ESL learners. It empowers the students to work independently, make choices about what they want to learn about, and aides them in both the reading of the text and navigating within the program and between articles. Although it was made primarily for use with children, the simplified syntax and vocabulary make it appropriate for adult learners as well. It does not seem juvenile from its appearance even though color drawings are used for the tool icons. The articles are on subjects found in any encyclopedia, so consequently are about things that hold interest for adults as well as children. The voice instructions for navigating also make this an excellent choice for ESL adult learners. The single disappointing feature of this software is the robot-like reading aloud of the articles. This would not promote comprehension for the most part and should be avoided with second language learners.

- **Applications within ESL Curriculum**

In general, students can use this resource to enhance their listening, reading, and writing skills. Specifically, there are the direct connections to the College of Lake County Workplace Literacy Curriculum:

- Make and respond to requests
- Effective listening
- Print or write simple information
- Make lists
- Order lists alphabetically
- Describe Procedures
- Identify key words
- Understand main ideas
- Skim for overview
- Read for specific information
- Scan for detail
- Use a checklist
- Read a chart
- Read a graph

First Connections: The Golden Book Encyclopedia

ACTIVITY #1: Introductory Lesson

Type of Activity: In Class

Lever of Learner: ESL 2 High Beginning
ESL 3 Intermediate

National Workplace Literacy Learner Objectives

See: Review for *First Connections: Golden Book Encyclopedia*

Materials and Resources

- CD-ROM of *First Connections: Golden Book Encyclopedia*
- Computer with CD-ROM drive

Procedure

1. Teacher shows students how to take a CD out of the plastic box, boot the computer, and put the disc in the CD-ROM drive.
2. Teacher shows students the icon of the CD-ROM on the screen so they know how to make sure the computer is reading the software.
3. Teacher opens the CD program by clicking on it.
4. Teacher explains the function of the mouse, to allow you to choose things on a computer screen. Teacher shows the mouse, then moves the mouse around the screen, clicking on different items and selecting them. Teacher teaches the words *mouse*, *click*, and *select* for further reference.
5. Teacher explains they will have choices, they can choose where they want to go with this kind of computer program. Teacher asks a student to choose one of the four quadrants on the main screen and explains what the path will allow the user to do. (See review of *First Connections* for a complete description of the paths and tools.) Continue with all four paths.
6. The teacher takes one path and demonstrates what a user can do. For example, at the World of Words path, the teacher should model looking at the map, thinking aloud (What do I want to learn about?), then choosing the place on the map, and reading a topic.
7. The teacher models how to use the tools on the side toolbar by returning to the main screen, making a bookmark, taking notes on the notebook, going to the previous article (the path button), and using the tracker button to see all

the articles the user has visited. The teacher also explains the connection between the icon and button's function (the footprints "walk" the user through all the previous articles, etc.). Finally, the teacher shows how users can hear instructions by clicking on the headphones.

8,. Individual students use each of the buttons with teacher supervision to access the different paths. Students also make a bookmark, review the articles visited with the tracker button, and take notes and print them. Each student should have the opportunity to select a path and then return to the main screen.

Evaluation

Each student in class will successfully use the mouse to select paths, do what is possible at that screen, and return to the program's main screen.

First Connections: The Golden Book Encyclopedia

ACTIVITY # 2: Reading an article and taking notes

Type of Activity: Independent with classroom follow-up

Level of Learner: ESL 2 High Beginning
ESL 3 Intermediate

National Workplace Literacy Learner Objectives

- Follow written directions
- Understand the main idea
- Summarize and rephrase
- Ask and respond to questions orally
- Read for specific information
- Read a chart

Materials and Resources

- *First Connections: The Golden Book Encyclopedia*
- Computer with CD-ROM Drive
- Accompanying Activity Sheet

Procedure

1. Teacher reviews with students how to boot computer and insert CD-ROM disc prior to giving this out-of-class assignment.
2. Teacher explains students are to complete this task outside of class time, and gives them a date by which they should have completed the task.
3. Teacher assigns individual students to fill in different parts of the chart so that when the class is combined all parts of the article will be represented.

AFTER TASK IS COMPLETED

3. Teacher gives instructions to students for this jigsaw cooperative learning activity. Students should find a partner, ask them for information on one of the types of safety, which they read and then fill in their chart. Students continue until they have completed their chart.
4. Teacher asks students to write a summary of complete sentences about safety based on the information they have written in their charts.

Evaluation

Students will have completed the task successfully if their summary on the safety article contains complete, coherent sentences.

Possible Extensions

1. Teacher could ask students to paraphrase their written information orally for the class and classmates would take notes to fill in their charts from the oral presentation.
2. The class could extend the section on work safety by listing other ideas to be included. Then students could write complete sentences for the ideas in small groups.
3. Students could talk about each of the safety categories with respect to their workplace. For example, they could generate sentences about poison, fire, and clothing safety at their workplace.

Activity Sheet for First Connections, Activity #3

Directions

1. Turn on the computer.
2. Put in the CD.
3. Open the program.
4. Choose ABC's from the main screen.
5. Type in the word SAFETY.
6. Read the article to find the 6 kinds of safety.
7. Choose 3 of the 6 types of safety to read carefully.
8. Read them and take notes on the chart on the next page for those 3 types of safety only.
9. Answer the question below.

What is safety? Safety is _____

TYPES OF SAFETY

House Safety	
Work Safety	
Sports Safety	
Fire Safety	
Poison Safety	

First Connections: The Golden Book Encyclopedia

ACTIVITY # 3: Taking Notes

Type of Activity: Independent and In-Class Follow-up

Level of Learner: ESL 2 High Beginning
ESL 3 Intermediate

National Workplace Literacy Learner Objectives

- Understand the main idea
- Skim for overview
- Read for specific information
- Make lists
- Write notes

Materials and Resources

- First Connections: The Golden Book Encyclopedia
- Computer with CD-ROM Drive

Procedure

1. Teacher asks students to explore the CD-ROM independently, read an article, take notes on the article of the main points, and bring the notes to class in a week.
2. Teacher reviews how to choose the notebook, and how to print.
3. Teacher models how to browse for an article, how to write only a few words instead of complete sentences, and how to choose important points to write about.
3. Students choose an article of their own interest and complete assignment.

AFTER TASK IS COMPLETED

4. Teacher asks students to write complete sentences from their notes about their article.

Evaluation

Students will be successful if they bring completed notes to class. The notes are coherent and reflect the main points of the article.

Possible Extensions

1. Students could give a short oral presentation to the class, using their notes as a guide.
2. Students could exchange notes and try to construct sentences from the notes.
3. Students could work in pairs or small groups to complete the tasks.
4. Students could exchange completed sentences and read each others, then explain orally what they understood from their classmate's writing.

First Connections: The Golden Book Encyclopedia

ACTIVITY # 4: Answering questions

Type of Activity: Independent

Level of Learner: ESL 2 High Beginning
ESL 3 Intermediate

National Workplace Literacy Learner Objectives

- Understand the main idea
- Skim for overview
- Read for literal comprehension
- Follow written directions
- Write simple and complex sentences
- Summarize and paraphrase information

Materials and Resources

- *First Connections: The Golden Book Encyclopedia*
- Computer with CD-ROM Drive
- Accompanying activity sheet

Procedure

1. Students complete activity sheet.
2. Students give completed sheet to instructor.
3. Instructor will provide appropriate feedback and editing on sheet.

Evaluation

Completed sheets will have coherent complete answers to questions.

Possible Extensions

1. Students could read the question aloud to class, then ask groups of students to try to answer the question. Finally, the student reads the answer aloud and class decides which group was closest to the answer.

Activity Sheet for First Connections, Activity #4**Directions**

1. Turn on the computer.
 2. Put in the CD for *First Connections: The Golden Book Encyclopedia*.
 3. Open the program.
 4. Choose **Seek and Find** from the main screen.
 5. Choose a topic from the pictures.
 6. Choose a question.
 7. Write the question below.
-

8. Read the article to find the answer to the question.
 9. Write an answer to the question in 2 or 3 complete sentences.
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