

DOCUMENT RESUME

ED 424 392

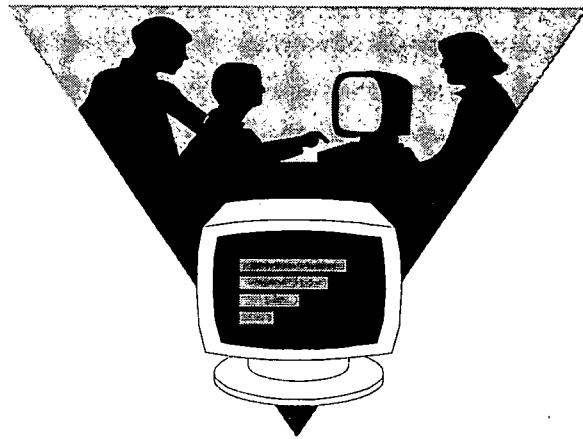
CE 077 302

AUTHOR Ruetz, Nancy; Kendrick, Julie
 TITLE Technology in the Workplace. Instructor's Guide (Revised Edition for Publication). Workplace Education. Project ALERT.
 INSTITUTION Wayne State Univ., Detroit, MI. Coll. of Education.
 SPONS AGENCY Office of Vocational and Adult Education (ED), Washington, DC. National Workplace Literacy Program.
 PUB DATE 1996-00-00
 NOTE 88p.; For other "Project ALERT" reports, see CE 077 287-302.
 CONTRACT V198A40082-95
 AVAILABLE FROM Workplace Education: Project ALERT, Wayne State University, 373 College of Education, Detroit, MI 48202 (\$40 plus \$5 shipping).
 PUB TYPE Guides - Classroom - Teacher (052)
 EDRS PRICE MF01/PC04 Plus Postage.
 DESCRIPTORS Adult Basic Education; *Computer Oriented Programs; *Computer Software; Continuing Education; *Education Work Relationship; Institutional Cooperation; Learning Activities; Microcomputers; Multimedia Instruction; On the Job Training; Program Implementation; Skill Development; Teaching Methods; Whole Language Approach; *Workplace Literacy
 IDENTIFIERS *User Training

ABSTRACT

This course focuses on terms, operations, and functions of computers. It is linked to mobile technology in the trucking industry. Applications include word processing, spread sheets, data bases, and other software packages. The course description lists target audience, general objective, and typical results observed. The next section gives instructors basic information related to providing successful educational programs in a workplace setting, an instructor's lexicon of strategies and principles that can be used in teaching, instructor's role and responsibilities, and course objectives. An explanation of lesson format lists six parts of the template used to design the lessons--understanding/outcome, materials, demonstration, exercise/engagement, workplace application, and evaluation/comments. A sample template and explanation of each part follows. A section on planning and scheduling deals with time requirements, class size, expected outcomes, prerequisites, and suggested timing for each lesson. Lessons are organized into the following categories: keeping track of learning; daily computer learning sheet; turning a computer on and off; introduction to the mouse; opening and closing icons; building mouse skills; identifying hardware; identifying critical keys; identifying, defining, and operating Windows elements; computer vocabulary; file manager; formatting a disk; typing a document; opening and closing files; saving a document; editing on a disk; spelling improvement; using spell check, and purchasing a computer. The document also contains the following: seven supplemental lessons; answer key; facility, materials, and equipment list; pretest; and posttest. (KC)

WORKPLACE EDUCATION



Technology in the Workplace

Instructor's Guide
(Revised edition for publication)

Nancy Ruetz
Julie Kendrick

Project ALERT



Wayne State University
College of Education

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The material in this project was prepared under Grant No. V198A40082-95 from the National Workplace Literacy Program, Office of Vocational and Adult Education, US Department of Education, under authority of the Adult education Act P.L. 91-230. Federal funding has contributed 70% (\$1,028,512) of the total cost. The remaining 30% (\$471,688) has been provided by four partners of the project UAW - Chrysler National Training Center, City Management Corporation, Davis Tool and Engineering and Wayne State University in the form of cost-sharing in-kind. Grantees undertaking such projects under government sponsorship are encouraged to express freely their professional judgment. Therefore, points of view or opinions stated in this document do not necessarily represent the official position or policy of the Department of Education.

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TABLE OF CONTENTS

Overview of Pre Mobile Technology	4
Rationale for Curriculum Approach	5
Making It Work	6
Adult Learners	7
Environment	7
Teaching Auditory Learners	8
Teaching Kinesthetic Learners	9
Teaching Visual Learners	10
Tips on Teaching	11
Instructor's Lexicon	12
Instructor's Role and Responsibilities	17
Objectives	18
How These Lessons Are Organized	19
Explanation of Lesson Format	21
Planning and Scheduling	22
Time Requirements.....	22
Size of Class	22
Objectives	22
Expected Outcomes	22
Prerequisites	22
What this course won't do	22
Suggested Timing for each Lesson	22
Lessons and Worksheets	24-66
Keeping track of learning	24
Daily Computer Learning Sheet	25
Turning a computer on and off	26
Introduction to the mouse	28

Opening and closing program icons	29
Building "mouse" skills	30
Identifying hardware	31
The Computer System, Hardware.....	32
Worksheet 1 Computer System --Hardware.....	34
Identifying and using critical keys on the keyboard	35
Computer Hardware Review sheet	36
Hardware and Critical Keys Worksheet	38
Identifying, defining, and operating parts of the computer window	40
Window Elements Worksheet	41
Computer Window Worksheet	42
Building a computer vocabulary list	44
Sample Vocabulary List	45
Understanding <i>file manager</i> in a computer system	47
Formatting a disk	49
Instructions for Formatting a Disk	50
Typing a document	51
Opening and closing computer files	52
Saving a document on a disk	53
How to Save a Document on Disk (Instructions).....	55
Editing a document on a disk- Part 1	56
Editing Exercise	57
Editing a document on a disk - Part 2	60
The importance of spelling and spelling improvement on the job	62
Spelling	64
Troublesome words	65
Using the spell check	66
Purchasing a personal computer	68
Supplementary lessons	70-76

Keeping a journal	70
Note writing	71
Parts and purpose of a newsletter	72
Compiling a newsletter from previously typed documents	73
Creating a newsletter format	74
Fine tuning a newsletter for clarity	75
Maslow's 4 stages of learning	76
List of References	77
Answer Key.....	77
Classroom Facility, Materials, and Equipment List	78
Preview (Pretest) Computer Basics.....	79
Review (Posttest) Computer Basics.....	82

Course Name: Pre-Mobile Technology

Description: This course will focus on terms, operations, and functions of computers. It will be linked to mobile technology in today's trucking industry. By understanding the fundamentals of personal computers, students will better accept and understand the function of mobile technology. Students will have an opportunity to use applications of word processing, spread sheets, data bases, and other software packages. The objectives of this course are:

- To raise awareness of computers and how they are used in the trucking industry.
- To recognize and use hardware related to a computer.
- To recognize the function and use of computer software.
- To understand/demonstrate how computers can be used on the job and at home.
- To recognize the advantages of using computers on the job and at home.
- To demonstrate the application and use of different components of the computer (mouse, printer, disks, trackball, etc.)
- To understand and demonstrate the function of various keyboard features.
- To understand the uses of business software applications. (Word processing, spread sheets, data bases)
- To demonstrate basic word processing skills, spread sheet skills, and data base skills.
- To understand the uses of and be able to use home/personal productivity software.
- To raise awareness regarding the use of the Internet, the World Wide Web (WWW), and e-mail (electronic mail).

Length of time: This course is designed to provide 30 hours of instruction.

Target audience: Truck drivers who wish to become skilled in fundamental computer applications.

General objective: Participants of this class will improve their knowledge of computer skills and the role of computers in the trucking industry in the immediate future.

Rationale for Curriculum Approach

The Whole Language philosophy provides the best approach for developing the learner. It supports success in the classroom and on the job. The integration of the curriculum reinforces all of the skills required to improve job opportunities. The key to providing a successful Whole Language program is assuring that every learner will be recognized as a potentially successful student. The learners must be co-partners in this collaborative effort. Learners are an integral part of the learning situation. They are valued for what they bring to the learning experience. The instructor is regarded as a facilitator of learning rather than the major source of knowledge and information.

Recognizing and building upon their unique past experience is crucial for integrating new learning. In this process, continual dialogue and interaction are key to the instructional process. The curriculum is built on the learners' strengths, not weaknesses, and accommodates the variety of learning styles and cultural orientations. It also encourages the learner to assume responsibility for his/her own learning. Recognition of success in the classroom enables learners to feel good about themselves. Learners become empowered workers by understanding the job process and how they contribute to the big picture.

Overall, raising the learners' level of self-awareness on the job, in the home, and in the community, will create a more satisfied and productive member of the work force.



Making it Work



This section of materials is provided to give instructors basic information related to providing successful educational programs in a workplace setting.

Adult Learners

General characteristics of adult learners:

1. Purposeful learning occurs with adults experience a problem or recognize a gap between where they are and where they want to be, then start to draw on resources to acquire the learning they consider necessary to close the gap.
2. One of the most important issues to consider from the adult learner point of view is "What's in it for me?" An adult needs to know that there is real value in what is being taught. Customize and adapt lessons to suit your students. Make a regular effort to point out what benefit the instruction has for the student. Many times students are unaware of the applications of learning. Make sure you point out possible applications of knowledge.
3. Adult learners insist that learning have relevance and value now, contrasted to youthful learners whose education is largely subject-centered and future-oriented. Most adults are already busy with their jobs and families, so the learning must be worthwhile.
4. Adult learners will drop out of educational situations that are seen as not accomplishing their own agenda.
5. The central organizing principle for adult learning must be around finding solutions for problems adults face. Emphasis must be on helping adults learn to cope with problems they face. Therefore, the instructor must be more *person-centered* than subject-centered.
6. Adult learners are well aware of what they need to know, and they like to participate actively in all phases of their education--assessment, instruction, and evaluation.
7. Many adult learners come into programs with the "baggage" based on a history of negative educational experiences. It is absolutely essential to provide a safe, non-threatening atmosphere where risks can be taken with out fear of humiliation or embarrassment.

Environment

Creating a safe environment for learning is a key factor in success. One of the elements that is part of a safe environment is multicultural sensitivity. The following suggestions should be considered as the lessons are delivered:

1. Use multiple instructional strategies to accommodate all learning styles. See *Learning Styles* for more information on this topic. Also see *Teaching Auditory Learners*, *Teaching Kinesthetic Learners*; *Teaching Visual Learners*.
2. Avoid ethnocentrism (belief in the superiority of one's own ethnic group), use of stereotypes, critical or judgmental attitudes, fear, and rigid expectations. Strive to

address the various cultures represented in the group. Try the AAAA approach to Cultural Diversity: Awareness; Acceptance/Appreciation; Action

3. Seek to understand the unique motivations of your audience in the workplace. Each worksite has a particular culture. It is important that you strive to understand and become a part of that unique culture.
4. Use materials that are not slanted toward any particular group.

Above all, the instructor must establish a learning environment in which diversity is valued. Students need to feel that their cultural backgrounds are viewed as assets to the class.

Teaching Auditory Learners

(Adapted from materials from presentation, *Designing Workplace Training to Accommodate Culturally Diverse Learners*, Douglas Jones, Linda Mrowicki, Workplace Education Division of THE CENTER-RESOURCES FOR EDUCATION, delivered Jan. 1996.)

Auditory learners learn best by listening to others. They usually do well in a "traditional" classroom.

Audio tapes: Have students or groups listen to a tape or create their own tapes for each other to listen to.

Music: Record key points on an audio cassette with background music. Write a song, rap, jingle or rhyme about the learning material.

Guest speakers: Invite subject matter experts to talk about a topic. This can be outsiders or members of the class.

Reading: Read or tell a story, for variety use music in the background.

Discussions: Use questions to get others in the class involved. Not only can students learn from the instructor, but they can learn by listening to each other, and the instructor can learn from listening to the students.

Repetitions: Repeat things out loud.

Directions: When giving directions, be sure to give them orally.

Mnemonic devices: Mnemonics are artificial aids to memory. The keyword HOMES can be used to remember the names of the Great Lakes; H = Huron O = Ontario M = Michigan E = Erie S = Superior. Sentences and rhymes can also be used; to remember which direction to turn a screw to tighten = Leftie Loosie, Rightie Tightie. Steps in basic division can be incorporated into the sentence: Donald (or Donna) made some candy bars = D = divide M = multiply S = subtract C = compare B = bring down.

Be the Instructor: Pair the class and have one individual teach the other, then reverse roles.

Concert Review: The instructor uses transparencies, pictures, charts, etc. that were used in presenting the lesson as a means of review. While playing soft music, the instructor displays and reads the instructional materials. A variation is to have a willing student read the instructional materials.

Oral Cloze: Use oral cloze (fill in the blank) activities to repeat key information

Teaching Kinesthetic Learners

(Adapted from materials from presentation, *Designing Workplace Training to Accommodate Culturally Diverse Learners*, Douglas Jones, Linda Mrowicki, Workplace Education Division of THE CENTER-RESOURCES FOR EDUCATION, delivered Jan. 1996.)

Kinesthetic learners learn best by doing. They like to be physically expressive. They also need to stretch and move periodically. The following are activities that enhance kinesthetic learning.

Walking and studying: Allow students to walk while they study.

Role playing: Use props and costumes while role playing. Can be done with a group or in pairs.

Action learning: Includes anything that requires people to use their bodies in some way while they learn. It could be a song, a dance, a mime, a physical acting out of a technology or process, or an active performance of the learning material where learners become interacting components of the material they are learning.

Strolling review: Have the group prepare colorful flip charts as a means of review. Hang them around the room. Play music softly as individuals walk silently around the room, carefully observing the wall display or examining the mind maps created by other learners. A variation is to play music while individuals stroll around and review.

Being the Coach: Ask one partner to be the coach while the other partner learns to perform a new task. After one run, reverse roles.

Demonstrating: Allow class members to demonstrate and physically do an activity. Provide opportunities for practice using repeated motion.

Writing: Writing requires students to use parts of their bodies. Write on surfaces with a finger. Write in the air. Trace on sandpaper. Take notes. Write lists.

Sequencing: Using a topic that has several steps or procedures, give each individual a piece of paper with the words or a graphic depicting one step or procedure. Ask the group to move around until they are in the correct sequence. An option is to act out what is on their piece of paper.

Teaching Visual Learners

(Adapted from materials from presentation, *Designing Workplace Training to Accommodate Culturally Diverse Learners*, Douglas Jones, Linda Mrowicki, Workplace Education Division of THE CENTER-RESOURCES FOR EDUCATION, delivered Jan. 1996.)

Visual learners like to process, store, and retrieve information visually. The following are examples of activities that instructors can use to facilitate the visual learner.

Demonstrations and modeling: Since visual learners like to understand the “big picture,” it is important to show or model all of what is expected before breaking it into its components.

Draw: Simple illustrations can be used to reinforce important information. Encourage students to draw as a means of committing key information to memory.

Imagery: Imagery is the mental visualization of objects, events, and arrays. The typical technique is to ask students to form a mental picture. It usually works best for concrete information and less well for abstract information. Images are better remembered if they are vivid and show some type of movement.

Study Guides: Study guides are used to summarize key information. They are useful for reviewing key points. Instructors can create study guides, or better yet, allow students or groups of students to prepare a study guide.

Graphic organizers: These are visual tools which can show the relationship of categories of information. Charts, graphs, and maps can be used to show relationships visually. They are also good because they usually show or explain a concept holistically. Instructors can create blank charts or matrices for the learner to complete.

Mental Imagery: Have learners rehearse or practice a knowledge base or a skill in their minds.

Mind mapping: Ask individuals to mind map a lecture or presentation, a written lesson, an article, an audio tape, a recollection, an experience, or anything relative to the learning situation that might be significant.

Note taking: Encourage visual learners to take notes using words or pictures. This provides them with another opportunity to visually rehearse the information. Note taking can also be done using a map which allows them to see the “big picture.”

Create notebooks: Using notebooks for class projects provides another way for students to see the information in their own words. It allows them to “customize” the information and make it their own.

Color codes: Visual learners like to see different things/views. Use color as a means of focusing attention, or use it as a means of changing the environment to add interest visually.

Study cards: Study cards use the visual sense to present the information. They can be used individually, with partners, or in large groups. Cards can be prepared by the instructor or students can prepare their own.

Pictures: Watch TV, filmstrips, movies, videos, etc. Another option is to have the group create their own video.

Mnemonics: Create acronyms, draw visual chains, or develop acrostics.

Directions: When giving directions, give them visually.

Tips on Teaching

1. Use logical sequences. Avoid jumping into topics without developing background or relevance for the skill at hand.
2. Control length of lessons into manageable chunks. Many employees come into classes at the end of a long and tiring day. Pace lessons so students can have short breaks.
3. Give recognition and encouragement. It is vital that you recognize and encourage all your students' progress toward their individual goals. Unfortunately, often adult learners are not supported by friends and family who view time spent in class as time taken away from them.
4. Use coaching. Model new skills. Point out the problems or pitfalls many students have with lessons. Repeat explanations several times or a period of time and several ways to accommodate all learning styles. Be there for them.
5. Encourage involvement. Make sure students hear you validate how important it is to learn new skills. Techniques that make provisions for active involvement of students will achieve learning faster than more passive teaching techniques.
6. Give feedback. Adults need to be reassured that they are on track. Give feedback often, and be sure to give negative feedback along with something positive.
7. Use summaries and advance organizers. When materials are detailed or involved, help students see the "big picture."
8. Questions will help you assess how your students are understanding. Make sure they are not accusatory in tone. It is possible to inadvertently press a "hot button" based on a students' unpleasant school memories. Maintain a safe atmosphere for students when questioning them.
 - Direct questions are usually *yes* or *no*, or short answer. They are easy to control.
 - Open-ended questions are more likely to prompt discussion. They are not as easy to control.

Instructor's Lexicon

The following lexicon is provided to remind teachers that there are a variety of strategies and principles that can be employed in teaching. When you are not getting the response you expect, when faces are blank or bored, when attendance starts to slip--*try something else*.

Anticipation Guides (Readance, Bean, and Baldwin) Prepare students for reading by asking students to reach to a series of statements prepared by the teacher in advance. Expected response is TRUE or FALSE.

Application of concepts to different situations- learning that is applied immediately is retained longer and is more likely to be used immediately than that which is not.

Techniques must be employed that encourage the immediate application of any material in a practical way.

Application to individual situation --Provide real life or real work scenarios for which students read different texts to solve problems

Article/pictures

5 W's (Who, What, When, Where, Why/How)

Antonyms/Synonyms

Match or rewrite topics/headlines

Change time, place, people and rewrite

Write questions with higher levels of critical thinking

Brainstorming--All responses are accepted, no judgment. Activates background knowledge. Gets students thinking before they read or write.

Cartoons- students fill in blank balloon with appropriate response

Categorical Overview-- Write down associations, think how they are related, categorize information, and label.

Cloze-- It is a method of systematically deleting words from a prose selection and then evaluating the success a reader has in accurately supplying the words deleted. In a given passage the first and last sentence is provided in tact. Thereafter selected deletions are made. *Ex.* Every 5th or 10th word; Initial/final letter; Word/ phrase; All nouns or verbs, etc.

Clustering-- Similar to mapping, adds visual dimension to the process of organizing ideas, helps students separate ideas into categories. Improves organization of thoughts for speaking or writing.

Coded Vocabulary--Student marks words that he knows with an asterisk, check mark for words he has heard of, and circles the words that he does not know.

Compare and contrast--Write or discuss similarities (compare) and differences (contrast)

Concrete Items/Demonstrations-- Including actual items in classes helps those learners who need more tactile or kinesthetic learning experiences understand. Visual and audio learners have an easier time with traditional formats than other kinds of learners.

Continuum of Descriptors--Write adjectives on a line to show degrees of modification, such as minuscule, tiny, small, average, big, huge, enormous

Cued Retelling (See article on Retelling--Free and Cued)

Cubing--On a paper cube, write down one of the following words on each side of the cube: describe, compare, associate, analyze, apply, argue for. When writing or discussing an object/concept, have students write about it using the suggestions from each side of the cube.

Designated Roles (Cooperative learning)

Listeners note points of disagreement
" " what is not said
" " questions to ask

DRAT (Directed Reading/Thinking Activity-Haggard, 1985)

Activate prior knowledge
Predict what will be covered
Read to designated point
Confirm, revise, or elaborate prediction with information from text
Continue in similar fashion through text.

Dyads

confirm/explain
make decisions
draw conclusions

Find someone who . . . --an ice breaker activity to raise awareness of the depth of experience and diversity in the class. Typically you can only get another person to sign your sheet once. Categories can be as generic as "find someone who has more than 5 brothers and sisters" or "find someone who speaks another language" to class specific information like "find someone who has read the work of Edgar Allan Poe." It can be designed for many topics but always helps students get comfortable with each other.

Flash card directions--Challenge learners to read more than one word at a time by giving direction quickly on flash cards. Ex. Put your hands on the table.

Free-writing/thinking

Can you think of a time . . .
Questions regarding topic

GIST--requires readers to reduce the first sentence of a passage to 3 or 4 words. The next two sentences to 5 or 6 words. The next three sentence to 7 or 8 words. This requires readers to make meaning and determine their own key words.

INSERT (Interactive Notation System for Effective Reading)--Students place a \surd , X, +, !, ?, ?? and * besides ideas they read to indicate whether they understand it (\surd), are excited about it (X), don't understand it (?), are stumped by it (??), or want to remember it (*).

Interviewing--Encourage students to generate a list of questions that would give them the information they would like to find out about someone. Have students break into pairs and interview their partner, using questions. Then let each introduce his/her partner using the information obtained.

Jigsaw/segmented reading --Instructor assigns parts of a selection to different readers. Readers read their part silently. Each reader shares what they read with group.

Journals--Students write reaction to class, write comments, write questions. Instructor does not judge them on technical competencies. May be used to tie topic of class to learner. If topic is American Education, journal writing questions could be: Where did you go to school? What did you like best in school? What irritated you the most? Why did it irritate you? Who was your favorite teacher? Why did you come to this class?

Key word predicting activity--Instructor selects passage and notes 10 key words. Words are shared with learners who are asked to predict content. Learners should try to make sense of key words. Next, learners read passage and find out if predictions are on target.

K-W-L--(Ogle, 1986) Students identify what they **Know** about a topic , what they **Want** to find out about a topic, and what they **Learned** about the topic.

LEA (Language Experience Approach, Stauffer, 1970) Students dictate sentences about an experience as instructor transcribes. This text become the reading material for that student.

Learning style--The 3 major learning modalities:

Visual-needs to see material

Auditory-needs to hear material

Kinesthetic- needs to move around while learning

LINK-- L= List I= Inquire N=Note K=Know List all associations for concept/topic on overhead/chart; inquire - give examples, clarifications about associations; note - write what comes to mind for one minute (overhead off/chart covered); know - what I know now about this concept/topic?

List and skip-- instead of looking up words as you read, use a *List and Skip* bookmark. Write down unfamiliar words from reading selection. After completing selection, look to see if any words were understood through use of context.

Main Idea-- explanation overheard by instructor between students. "How would you tell your mama what the (article, book, chapter) was about if you were calling her long distance?"

Mapping (Baumann, 1991)--Arranging key terms into a diagram that is meaningful to the student. It can include the following:

Key words/phrases

Structure

Questions

Connecting lines/circles

Is a graphic representation of the relationship between major ideas and supporting details.

Metacognition - Being aware of how you learn, and the process of thinking through a learning situation. The development of self-questioning or monitoring of patterns of thinking, which helps students become an independent learners who can recognize and correct their processing errors.

Questions with others

What do you think about ...?

Why is ... used for ...?

What would you do if ...?

Paired Questioning --Divide students into pairs, read passage, close book. Each in turn asks questions with the other answering; tells important ideas; paraphrases or summarizes; agrees/disagrees; draw picture or graphic representation of what learned.

Reading strategies-- Good readers bring what they know about the topic to the print on the page. They are active readers. Good readers take chances, they risk being wrong. Good readers guess at or skip words they don't know and read on for help. Good readers

expect the material to make sense. Good readers try to match reading speed to what they are reading.

Reading techniques

see: Flash card directions

see: GIST

see: Key word predicting activity

see: List and Skip

see: Word Bank

Reciprocal questioning

Students work in pairs

Both read a portion of a reading selection.

One asks the other a question.

Continue reading selection

Alternate asking questions.

Retelling/rewriting- Can be free retellings, cued retellings, and/or cued comprehension questions. Provides an opportunity for students to reflect and revise their thoughts. Teachers can record students thoughts without having to infer right or wrong choices. Possible prompts: *Write down everything you can remember about the selection you just read.* Provide a list of words from the passage, and then, *Use these words to help you remember everything you can about the passage.* See *Retelling--Free and Cued*

Retelling--Free and Cued - A free retelling allows a reader to structure his or her demonstration of comprehension without the constraints often imposed by a testing situation. If the objective of the assessment is to find out how the student is thinking about the content rather than how much he can demonstrate that he knows, the unprobed (free) retelling is probably the best response.

Researchers find the free written retelling to be an invaluable tool as they explore issues related to reading comprehension. Retellings allow analysis of the link between the response and the original source (the text). Many teachers are reluctant to use them because they do not lend themselves easily to objective scoring.

Since remembering and understanding are not synonymous, there is value to using retrieval cues as an aid to comprehension. By including word or phrase cues the reader has the freedom to indicate his or her comprehension according to personal dictates while simultaneously providing bits of text to help dissolve the confusion between what is understood and what is remembered. Cued retellings may be the best of both worlds.

In order to do this form of assessment, the teacher needs to have comprehension questions in mind. the perspectives on comprehension that are to be checked should be noted.

Were the students responses text explicit (Just the facts recited)

Were the responses full of nonessential details? (Not important to understanding the essential message of the passage)

Does the student understand the essence of the passage? (Main idea)

Unless you assess students' comprehension with the intent to learn what students do and do not remember, you can only speculate about their comprehension and the appropriateness of your instructional focus.

Say Something- 2 students read a passage to a designated point Each has to say something about the reading

Segmented reading --see: Jigsaw

Semantic map--see **Mapping and Webbing**

Sequencing--*Paragraphs*

- Articles are cut into parts based on content.
- Student reads each part
- Student orders the parts based on content

Pictures

- Cartoons or picture sequences are cut apart
- Student orders the part based on content

T Chart -- (Johnson & Johnson) Write the name of a skill to be learned or practiced and draw a large T beneath it. Write "looks like" on the left side of the T and "sounds like" on the right side. On the left side list behaviors that one might see in someone exhibiting this skill. On the right side list phrases that might be used by someone exhibiting this skill.

Think aloud- (Davey) Instructor models and tells the thought process for an instructional piece of material.

Three-way rotation--Three different ways of saying the same thing.

Time line-- Events are placed on a time line to visualize the relationship of events in respect to what else was happening at the same time.

Total Physical Response (Asher)--incorporates listening to directions or commands like, "STAND UP!, SIT DOWN!" and they respond to commands without speaking.

Used most effectively in early ESL situations.

Transformation- charts, graphs, maps, forms -learn key idea and transform into different format/media Ex. Act out without words Make a chart or form to explain information to others

Webbing-- Similar to semantic mapping - as a graphic representation of the relationships between major Supporting details are then supplied for the secondary ideas in a logical fashion.

Word bank--a versatile tool for vocabulary learning. Excellent warm up before reading and writing, assessing prior knowledge. Select a topic related to reading. "When I think of _____ I think of _____" Instructor fills in blanks then asks, "What do you think of? Try to generate 25-50 words per topic.

- a. Builds critical thinking skills by clustering words that belong together.
- b. Try adding prefixes and suffixes. Discuss how changing the form can change meaning.
- c. Focus on spelling; note roots and affixes, number of syllables.
- d. Plan a writing exercise. Determine organization according to purpose.
How to = chronology
Personal experience = narrative
Description = topic characteristics.
- e. Add vocabulary words as they are discovered through reading or conversation

Instructor's Role and Responsibilities

There are four main responsibilities in your role as instructor of this class.

1. **Instruction** -- As the instructor you will choose the lessons and gauge the depth of instruction based on the needs of your students and the accomplishment of the objectives.

2. **Assessment** -- This vital part of your role should be handled with great sensitivity. Many adults have not been in a classroom setting for a long time. For some, the testing situation and facing the results of tests is an extremely stressful experience that can cause them to drop out of the class. Diffusing the anxiety of the testing situation is a necessary part of your role.

The pretest should be given before instruction begins to gauge their attitudes as the course begins. The posttest should be given at the end of instruction. Results will be compared to see if instruction made a difference.

Also, the pre and post tests are identical, with the exception of the cover page. Make sure the pretest uses the Preview cover page and the posttest uses the Review cover page. Subsequent pages are identical.

3. **Keeping attendance records** -- In some work situations, attendance is mandatory. In others, employees are paid to attend and accurate attendance records are required.

4. **Other records** -- Anecdotal comments and observations, especial in regard to learning or change, should be documented. Companies and unions are very interested in this kind of feedback and may want to use quotes for recruitment or promotional activities.

This lesson format encourages you to keep notes on how individual lessons worked and what changes might be made to make the lesson more effective to your particular situation.

Objectives

This course builds a fundamental understanding of computers for those who may have no background or experience at all with computers. The technology of the trucking industry requires a comfort level with computers. The lessons aim to be generic in the sense that no hardware or software is required. The course can adapt to the equipment available. Lessons assume that *Windows* software has replaced most DOS systems. Size and speed of computers are not addressed.

The objectives of this course are:

1. To raise awareness of computer-related issues in the trucking industry..
2. To recognize and use hardware related to a computer.
3. To recognize the function and use of computer software.
4. To understand/demonstrate how computers can be used on the job and at home.
5. To recognize the advantages of using computers on the job and at home.
6. To demonstrate applications and uses of different components of the computer (mouse, trackball, touch screen, printer, disks, etc.)
7. To understand and demonstrate the function of various keyboard features.
8. To understand the uses of business software applications (word processor, spread sheet, data base.)
9. To demonstrate basic skills using a word processing program..

How these lessons are organized

Objectives for each course have been identified. Lessons have been designed to assure objectives are accomplished. Lessons are designed in a format that has six parts:

- | | |
|--------------------------|---------------------------|
| I. Understanding/Outcome | IV. Exercise / Engagement |
| II. Materials | V. Workplace Application |
| III. Demonstration | VI. Evaluation / Comments |

The following page gives a detailed explanation of the format used for each lesson.

Today, operating a computer on the job is as important a skill as reading, writing, and math. This guide will help you understand how to teach employees to operate a computer. It assumes that many have no idea how to turn it on. The lessons use a Whole Language approach so that learners prior knowledge is considered and built upon for better understanding. Though worksheets are provided for students, the goal for using them is to give students an opportunity to process their learning, not simply completion of an exercise.

It is also assume that as the instructor for this course, you have a background and understanding of computers and software programs. This guide was not designed to be a comprehensive guide for computer instruction.

The instructor should develop the lessons for the word processing portion of the class based on the programs available and the needs of the students. Most word processing programs are similar to each other, therefore once you have learned one program, it is easy to apply those skills to other programs..

The introductory typing lessons were completed in the MicroSoft Write, a word processing program found in Windows. These lessons are to be completed in the classroom. However, because of the nature of the lessons they can be practiced on a home computer using the diskette from the class. The lessons are designed to give possible discussion topics for activation of prior knowledge and learning engagements. Supplementary materials and samples have been suggested and provided when possible.

The instructor is encouraged to bring examples and anecdotes to supplement or replace existing materials. The guide has been designed to provide the instructor with as much as possible to produce meaningful learning experiences. But the lesson designers do not assume that they know best what is appropriate for a particular lesson or class. That is left to the instructor's discretion.

Explanation of Lesson Format

I. Understanding /Outcome: Focus of the lesson.

Materials: What is needed and helpful to do the lesson.

Accompanying supplementary materials: Materials supplied or designed to support the lesson.

III. Demonstration

Activate prior knowledge.
The activation of prior knowledge is a critical piece of the Whole Language philosophy. Lessons will always begin with suggestions for activation of prior knowledge, so students can make a connection to their past experience.

Suggested activities.
Examples of possible scenarios or questions to initiate discussions.
See *Glossary of Instructional Terms* for more explanation of methods suggested.

IV. Exercise/Engagement:

A step by step procedure for the lesson. Specific activities to engage the students with instructor supervision. The instructor is provided with this framework with the understanding that adaptations may be made to suit the individual or the group.

1. Suggested activities. See *Glossary of Instructional Terms* for more information.

V. Workplace Application: How this new learning, understanding, or concept is applied in the workplace.

VI. Evaluation/Comments: This space is provided for instructor's commentary and/or evaluation of the level of success of the lesson. This may include the duration of time on task, student comments about the lesson, instructor comments about the lesson, and instructor observations on how to improve, expand, or further customize the lesson. Initially, this information was used to revise and improve pilot lessons for replicable models of instruction. As instruction continues, it is a valuable way for the instructor to keep track of particular strengths or weaknesses of a lesson, things to remember when teaching, etc.

Planning and Scheduling

Time Requirements

This class is designed to contain approximately 30 hours of instruction. But the format of the course allows the instructor the flexibility to customize lessons to fit into available time slots. Due to the variable of students skill levels and interests, the instructor will make many decisions on lesson length and inclusion

Size of Class

The size of this class is determined by the number of computers that are available. It is best that students work alone on computers. Classes that are less than 10 are ideal. The instructor can circulate and monitor individual progress.

Expected Outcomes

Participants of this class will improve their knowledge of computer skills through the discussion and practice of sound principles of learning and application to job-related and personal situations.

Prerequisites

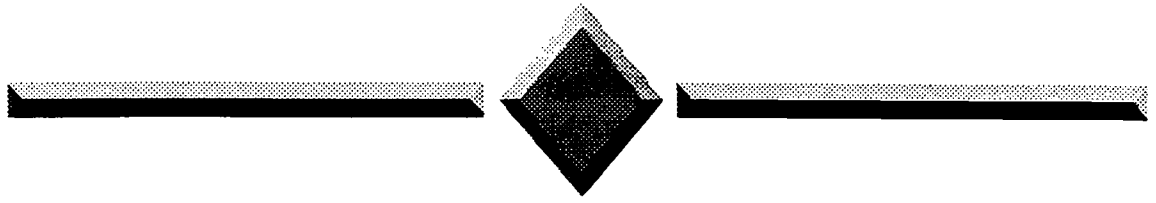
There are no prerequisites for this class except for a willingness to learn about technology. Those with difficulty in reading and writing will be given as much instructor support as possible. Many lessons are verbal, so limited readers and writers will not feel uncomfortable

What This Course Won't Do

This course is not meant designed for non-readers and non-writers. Students must be able to recognize numbers and all letters of the alphabet to benefit from instruction. Students with reading skills that allow them to read the newspaper should have success in this course. Those with limited reading skills can work with a partner on the reading/writing components. It is important that students who are very limited readers and writers are identified and encouraged to speak privately with the instructor and be counseled so they can focus on improving those skills.

Suggested Timing for Each Lesson

It is difficult, if not impossible, give time estimates for lessons. The goal is to suit the lesson to the learners. The interest in the topic, amount of prior knowledge, and skill levels of the students will determine the length of the lessons. Our experience has shown a time range from 20-75 minutes per lesson is workable. Some very difficult lessons may require several sessions.



Lessons and Worksheets

Keeping Track of Learning

I. Understanding /Outcome: How to use the *Daily PMT Learning Report*

II. Accompanying supplementary materials: *Daily PMT Learning Report*

III. Demonstration

Activate prior knowledge.
Have you ever had to keep track of something over a period of time?
(Giving medications to a sick person, tracking the performance of a problem, etc.)
What is the value of keeping a written record of a process?

Suggested activities.

IV. Exercise/Engagement:

Ask students to look over the *Daily PMT Learning Report* form .

Discuss the way the form will be used in class each session.

V. Workplace Application: Keeping written records of progress is valuable and gives an opportunity to address legibility and completeness in filling out forms.

VI. Evaluation/Comments:

Daily PMT Learning Report

Name: _____ Date: _____ Time _____

Today's topic

What I learned today:

Why do I need to know this?

How did I learn this?

What I need more practice with:

What would be helpful for me to learn:

I am ready to move on to the next topic. Yes No

Turning a computer on and off

I. Understanding /Outcome: To learn how to turn the computer on and off properly.

Materials: Personal computer system

III. Demonstration

Activate prior knowledge.

1. What machines vehicles do you operate on the job?
2. Did you have to learn how to use them properly?
3. What happens when someone uses a machine without proper instruction?
4. How effective would a machine be if you did not know how to operate it?

Suggested activities.

1. Brainstorm why it is important to operate machines correctly? Instructor may list responses on a chart or blackboard.
2. Brainstorm what mishaps could occur when machines are not used correctly?

IV. Exercise/Engagement:

1. Turn on the computer. Point out buttons and switches.
2. Explain the booting process.
3. Identify the MicroSoft windows program.
4. Define the terms hardware and software.
5. Demonstrate how to shut down the computer correctly.
6. Demonstrate how to return to windows.
7. Explain the result of turning off the computer incorrectly.

1. Suggested activities. This hands-on activity gives students an opportunity to get familiar with the computer.

V. Workplace Application: To reinforce the importance of proper use of machinery and equipment.

VI. Evaluation/Comments:

[Empty box for evaluation and comments]

Introduction to the mouse

I. Understanding /Outcome: To begin using the mouse inside MicroSoft windows.

Materials: Personal computer system, computer software

III. Demonstration

Activate prior knowledge.

1. How do you get information into a computer?
2. Introduce the term *input device*.
3. What are the different ways to input information into the computer? What experiences have you had with putting information into a computer.

Suggested activities.

Brainstorm the many types of input devices (keyboard, mouse, touch screen, scanner, etc.)

Instructor lists responses from the group. Gift registrations at most department stores have a touch screen.

IV. Exercise/Engagement:

1. Use the mouse tutorial inside the **Help** window
2. Demonstrate how the mouse controls the pointer on the screen.
3. Give a definition of **icon**.
4. Demonstrate how to click on the menu bar.
5. Demonstrate how to double click on an icon
6. Demonstrate how to open and close a window.

This hands-on activity will introduce the mouse.

V. Workplace Application: To increase awareness of computer input devices that exist in the workplace.

VI. Evaluation/Comments:

Opening and closing program icons

I. Understanding /Outcome: To properly open and close a program icon

Materials: Personal computer system, computer software

III. Demonstration

Activate prior knowledge.

1. Discuss the concept of a shopping mall. Each store in the mall offers different services. When you enter each store or restaurant you can do or get certain things and then exit the store.
2. Demonstrate the relationship between a mall full of stores and a windows program with different programs.

Suggested activities.

Each icon is a separate store that you can open and perform certain functions and then exit.

IV. Exercise/Engagement:

1. Define the technical term *icon*
2. Demonstrate the process of opening and closing an icon
3. Show the difference between the different icons.

V. Workplace Application: To increase the awareness of the different types of icons and the programs that they represent on the computer.

VI. Evaluation/Comments:

Building "mouse" skills

I. Understanding /Outcome: To build mouse skills by locating and learning to play a game on the computer.

Materials: Computer system, Computer games

III. Demonstration

1. Do you know how to play the card game *Solitaire*?

Suggested activities.

List the games on the computer

2. What are the rules of the game *Solitaire*?

List the rules of the specific games

3. What two input devices do these computers have?

Allow the participant to pick the game with which they are familiar.

Explain the keyboard/ mouse movement for each game.

IV. Exercise/Engagement:

1. Enter the *Entertainment* window.
2. Select the particular game icon.
3. Open up the game properly.
4. Go to the *Help* menu inside the game.
5. Read the *How to play* instructions.
6. Go back to the game and play.

V. Workplace Application: To build the participants' confidence their ability to operate the computer and use the mouse.

VI. Evaluation/Comments:

Identifying hardware

I. Understanding /Outcome: To identify the hardware parts of the computer.

Materials: Computer system, computer worksheets: *The Computer System, Hardware, and Worksheet 1*

III. Demonstration

Activate prior knowledge.

1. What other machines use keyboards to input data?
2. What appliance do we have at home that has a monitor?
3. Where have you seen computers used before?
4. What kind of information is put on a computer?
5. What are the differences between a computer and a typewriter?

Suggested activities.

Brainstorm the many uses of the computer.
Instructor lists responses from the group.
Discuss individuals experience with computers. (ATM machines, voice mail boxes, grocery check outs, gift registries)
List responses from the group.

IV. Exercise/Engagement:

1. Name each part of the computer.
2. Explain the function of each computer part.
3. Write a short definition for each computer part.
4. Identify each computer part in a picture.
5. Name the important keys on a keyboard.
6. Demonstrate the functions of the computer keys.
7. Identify the different keys on a computer keyboard compared to a typewriter.

Students may do the worksheets independently or in pairs. Those with limited reading or writing skills may find it more comfortable to work with a partner.

V. Workplace Application: Increase the awareness of computers and their application at work.

VI. Evaluation/Comments:

Name _____

The Computer System, Hardware

Reprinted with permission from *MicroSoft Windows 3.1* by Margaret Brown

Directions: Use the following terms to fill in the blanks below:

chips	floppy disks	keyboard	mouse
computer	hard disk	memory	printer
disk drive	hardware	monitor	processor

_____ 1. What is an electronic device that performs complex tasks at high speed with great accuracy? It has two main parts, the processor and the memory.

_____ 2. What are small pieces of silicon wafers that often hold instructions to perform behind-the-scenes tasks, making it possible for you to use the computer?

_____ 3. What is the group of parts called that make up the computer system that can be seen and touched?

_____ 4. What is the small hand-held device used to control a pointer on the screen?

_____ 5. What do you call the large capacity, permanent storage area that offers fast access to the information stored on it?

_____ 6. What do you call the area of the computer that holds instructions (programs) and information you give it? It forgets everything when the computer is turned off.

_____ 7. What device transfers information from the computer to paper?

_____ 8. What is the device that transfers information back and forth between the computer and a disk.?

_____ 9. What do you call the magnetically coated disks on which information (both programs and data typed from the keyboard) can be stored and retrieved?

_____ 10. What is the *brains* of the computer?

_____ 11. What is the part that has a screen that displays information on the computer?

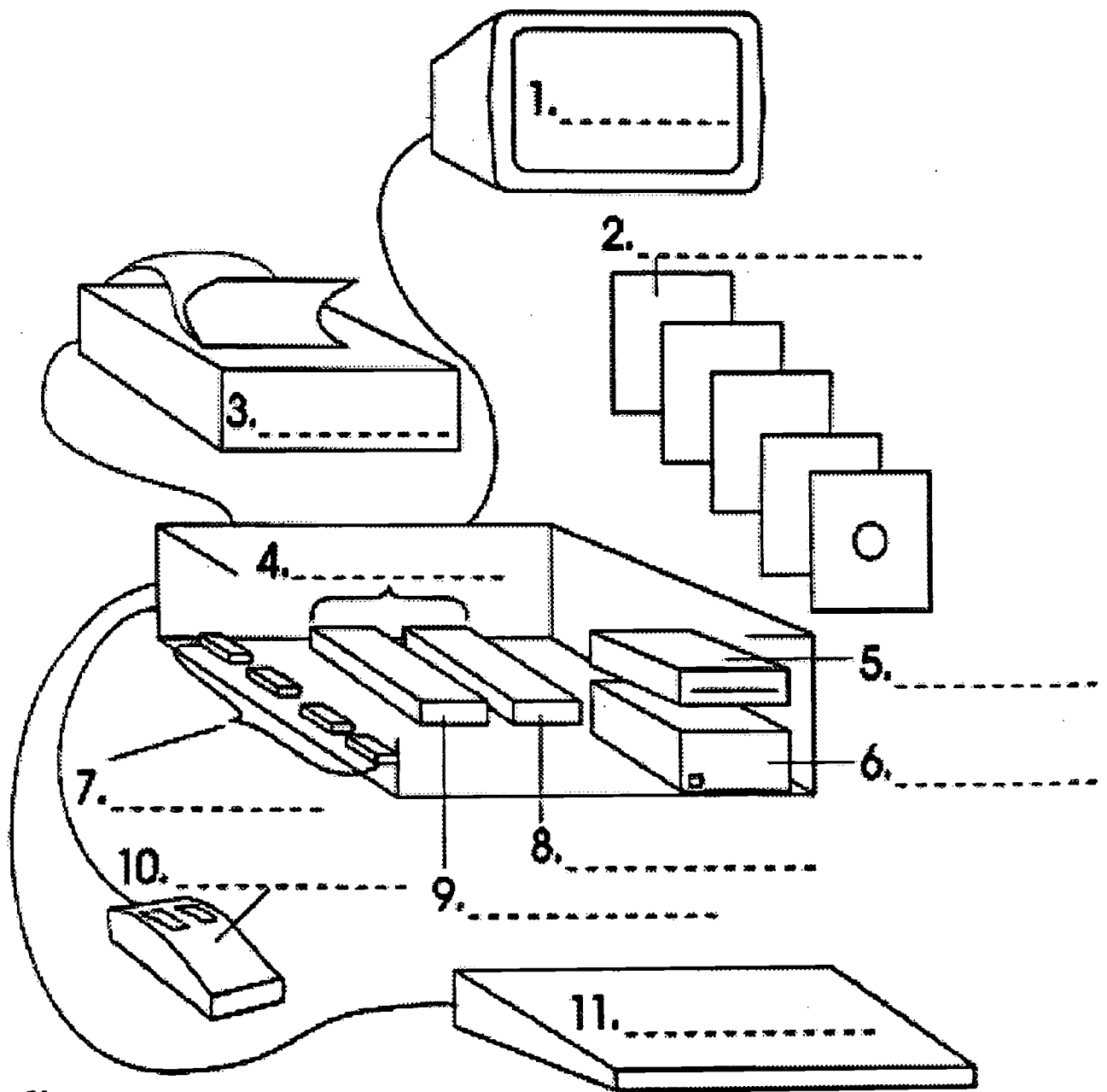
_____ 12. What is used to enter data into and issue commands to the computer?

Name _____

Worksheet 1 The Computer System--Hardware

Instructions: Use the following terms to fill in the name of each piece of hardware shown below.

chips floppy disks keyboard floppy disk drive mouse printer
computer hard disk memory processor monitor floppy disk drive



Identifying and using critical keys on the keyboard

I. Understanding /Outcome: To identify the critical keys on the keyboard

Materials: Personal computer system, computer software, *Computer Hardware, Review Sheet, Hardware and Critical Keys Worksheet.*

III. Demonstration

Activate prior knowledge.

1. What other machines use keyboards?
2. Review the differences between a computer and a typewriter.
3. Ask the class to look at the keyboard and identify the names of keys they are not familiar with.

Suggested activities.

Describe the standard keys on the keyboard (space bar, shift key, tab key)
Instructor lists responses of the group

IV. Exercise/Engagement:

1. Review the function of the keyboard as a input device.
2. Identify and define the keys on the keyboard on the *Computer Hardware Review Sheet.*

Give students an opportunity to use the different keys and see what happens, then they can fill in worksheets based on their experience. Students may find it more helpful to work with a partner on the worksheets.

V. Workplace Application: To take the participant from an unfamiliar level to a comfortable level of keyboarding.

VI. Evaluation/Comments:

Name _____

Date _____

Computer Hardware Review Sheet

1. Name the five parts of computer hardware.

2. Which mouse button do we use in class? _____

3. What does *CPU* stand for? _____

4. What are the two parts of the CPU?

5. What are the two *eraser* keys? _____

6. What electronic device performs tasks at high speeds with great accuracy?

7. Which key do you press to move up one page at a time? _____

8. Where are the *function keys* located? _____

9. What part of the computer is considered the *brains of the computer*?

10. What are the other names for the *A* drive and the *C* drive in this class?

11. What is the small hand-held device used to control the pointer called?

12. What functions does the *enter key* perform? _____

13. What is hardware? _____

14. What does *Esc* stand for on the keyboard? _____

What does *Ctrl* stand for on the keyboard? _____

15. What function does the *Num Lock* key perform? _____

16. What is the name of the screen that displays the computer information?

17. What transfers information back and forth between the computer and the floppy disk? _____

18. What function does the *Cap Locks* key perform? _____

19. What part of the computer is the temporary or short-term storage area?

20. What device transfers information from the computer to the paper?

Name _____

Date _____

Hardware and Critical Keys Worksheet

Fill in the word that fits the definition.

- _____ 1. The screen that displays the information in the computer.
- _____ 2. The device that transfers information from the computer to the paper.
- _____ 3. The small hand-held device used to control the pointer on the screen.
- _____ 4. The electronic device that performs complex tasks at high speeds and with great accuracy.
- _____ 5. The device used to enter data into the computer.

Write what each key does (its function) on the lines after it.

6. Enter key _____

7. Number keys _____

8. Number lock key _____

9. Caps lock key _____

10. Shift keys _____

11. Backspace key _____

12. Delete key _____

13. Page up key _____

14. Page down key _____

15. Escape key _____

16. Function keys _____

17. Arrow keys _____

Identifying, defining, and operating parts of the computer window

I. Understanding /Outcome: To identify, define, and operate the parts of the computer window

Materials: Computer system, Windows, *Window Elements Worksheet*, *Computer Window Worksheet*.

III. Demonstration

Activate prior knowledge.

1. Make a comparison computer terms to common terms.
 - a. What do you have on the cover of a book? (title = title bar)
 - b. What do you order from at a restaurant? (menu = menu bar)
 - c. Imagine a picture in a frame. What are its parts? = (windows borders and corners)
 - d. During a presentation, what does the speaker use to point at things on a chart or slide? (mouse, pointer)
 - e. How do you make the paper in a typewriter move up? (scroll bars)
 - f. What does a magnifying glass do? (maximize button)

IV. Exercise/Engagement:

1. Identify each part of the window in the worksheet.
2. Write a short definition for each part of the computer window
3. Relate the computer window parts to their particular example

Turn the computer on and give students a chance to use the different window elements. Give students an opportunity to work in pairs if they choose.

V. Workplace Application: To understand the Window environment

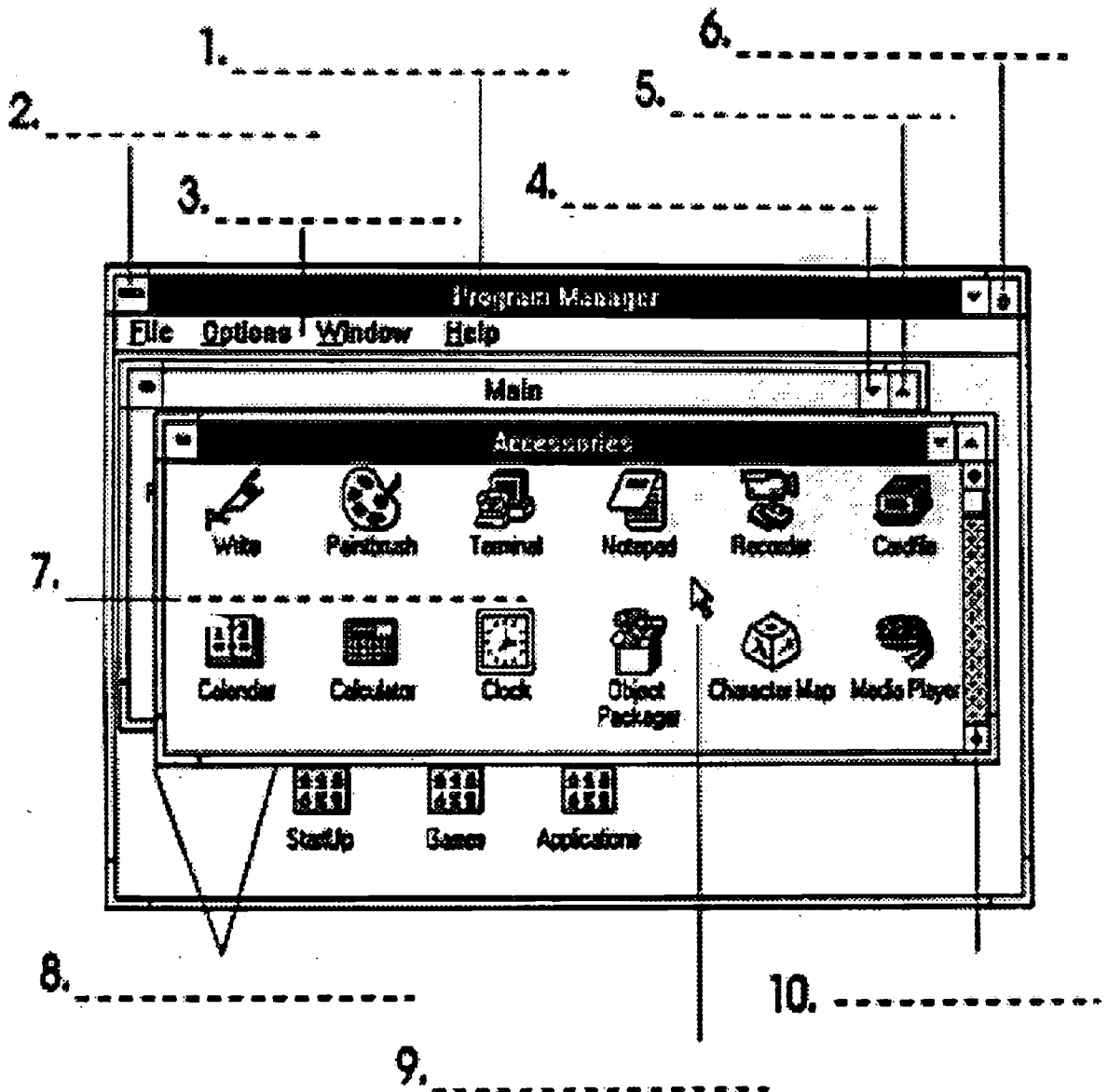
VI. Evaluation/Comments:

Name _____

Window Elements Worksheet

Directions: Use the following terms to fill in the blanks below:

menu bar maximize button control box title bar pointer
window borders and corners minimize button work space
restore button scroll bar



Computer Window Worksheet

Directions: Answer the following questions as completely as possible.

1. In what bar on the screen is *Program Manager*? _____

2. What button makes the window the size of the entire screen? _____

3. What is the arrow on the screen called? _____
4. What are the little pictures on the screen that represent programs and windows called? _____
5. What is the bar called that says "File" "Options" "Window" and "Help"? _____
6. When you click on the words on the *Menu Bar*, what do you get? _____

7. What is any box called with a statement or questions and some choices?

8. What is formatting? _____

9. What kind of programs are represented by the icons in the *Entertainment* window? _____
10. If we did not have a mouse for our computers, what buttons on the keyboard would we use? _____
11. What are the bars called that appear on the right and bottom of the window, that move the workspace so that information can be seen? _____

12. On what drive do we save all our class work? _____

13. What is the name of the software program what we are learning in this class? _____

14. What function does the control box perform? _____

15. When you finish typing a document, what are that steps that you do to save your work? _____

16. Can you type a name in the *File Name* box that has 10 letters and an apostrophe s ('s) at the end of it? Example: timberland's _____

17. What side of the disk goes into the computer first? _____

18. When do you put the disk in the disk drive? _____

19. What does the restore button do? _____

20. When you first turn on the computer and the screen is black with numbers and messages on it. What process is the computer going through? _____

Building a computer vocabulary list

I. Understanding /Outcome: To build a computer vocabulary list

Materials: Personal computer system, computer software

III. Demonstration

Activate prior knowledge:

1. Discuss the importance of knowing the correct terminology for your job
2. Would you be able to communicate effectively if you did not know the language of your job. Ex. - trucking language has radio dispatch terms, abbreviations, etc.

Suggested activities.

Generate examples of situations when it is necessary to use specific terms to express yourself clearly.

IV. Exercise/Engagement:

1. List all the computer vocabulary words the group has learned thus far.
2. Write a one sentence definition for each vocabulary word using the past computer worksheets.
3. Describe the computer system in front of the student using the correct computer language.

Students may not have the typing skills to do this on computer yet. Encourage them to use the computer, but long hand definitions are acceptable at this time. Alphabetizing may cause difficulty for some students.
NOTE: The sample vocabulary is provided as a model, it is not intended to be a hand out.

V. Workplace Application: To show the importance of workplace terminology

VI. Evaluation/Comments:

Vocabulary List

A drive - the device that reads data from and writes data to the disk. Also called the floppy disk drive.

backspace key - erases information to the left or behind the cursor.

booting - a process that happens when you first turn on the computer. The computer goes through a systems check.

C drive - a drive that is a large capacity permanent storage area that offers fast access to the information stored on it.

computer - an electronic device that performs complex tasks at high speed with great accuracy.

control box - the box at the left end of the title bar that opens the control menu.

CPU - abbreviation for Central Processing Unit

delete key - erases information to the right of the cursor.

dialog box - any box with a statement or a question that gives choices

disk drive - a device that transfers information back and forth between the computer and the disk.

formatting - the laying down of markers on a disk that allows for finding or retrieving files. Used disks can be reformatted and this erases all previous files from the disk.

floppy disk drive - the device that reads data from or writes data to the floppy disk. Also called the A Drive.

function key - located at the top of the keyboard, F1 through F12. They are used with some software to operate programs when no mouse is available.

hardware - the group of parts that make up the computer system that can be seen and touched. These parts are the monitor, computer, keyboard, printer, and mouse.

icons - the little pictures on the screen that represent programs and windows.

keyboard - used to enter data into the computer and issue commands to the computer.

maximize button - the button that makes the window the size of the entire screen.

memory - the area of the computer that holds instructions (programs) and information that you give but "forgets" everything when the computer is turned off.

menu bar - the bar that has the names of the application's window menus. Example: File, Option, Window, Help.

minimize button - this button makes the window smaller

monitor - is the television like piece of equipment that displays computer information.

mouse - a small hand-held device that is used to control the pointer on the screen.

pointer - the arrow shaped cursor that moves as you slide the mouse over a flat surface.

printer - a device that transfers information from the computer to paper.

processor - also called CPU (Central Processing Unit) is considered to be the brains of the computer.

restore button - the button that restores the screen to the previous size.

scroll bar - the bar that appears at the right and bottom of the screen that moves the contents of the window so it can be seen.

software - programs that may be loaded on the computer's hard drive.

title bar - a horizontal bar at the top of a window that holds the window's name.

windows borders and corners - the edges of the windows that are used to size windows.

workspace - the central part of the window where the work on the application is located.

Understanding *file manager* in a computer system

I. Understanding /Outcome: To understand the file manager in a computer system.

Materials: Personal computer system, computer software

III. Demonstration

Activate prior knowledge.

1. When do you have to find something at work? (A part number, a routing sheet, an order number, etc.) Where do you go when you want to find a phone number? (You can look in the yellow pages, a *directory*)
2. If you are if you are looking for a specific topic in a book, where should you look first? (the index)

Suggested activities.

Give examples of specific situations when it is necessary to locate a specific topic. Elicit responses.

Explain how you start in the index to look up the topic. The index is the file manager. The topic is the program (windows, ms works, ms word, ms publisher). The information that is found on the topic is the files

IV. Exercise/Engagement:

1. Open up the file manger icon.
2. Explain the different sides of the window, files and programs.
3. Demonstrate how to change the drives (Hard and floppy or disk)
4. Show how you can display the information in different variations under the *view* option.
5. Explain the menu bar selection for this window
6. Demonstrate how you can open, delete, and copy a file from this window

V. Workplace Application: To understand basic management of a number of computer files

VI. Evaluation/Comments:

[Empty box for evaluation and comments]

Formatting a disk

I. Understanding /Outcome: To format a disk to an IBM computer

Materials: Computer system, worksheets, 3.5" disks, *Formatting a Disk Instructions*

III. Demonstration

Activate prior knowledge.

1. What comes in different formats?
2. Explain the reason why this format function is necessary.
3. Compare formatting to the lines on a sheet of paper. The lines are used as a guide to keep your words in order.
4. Demonstrate the steps necessary to format a disk
5. Explain how often the procedure is done
6. Explain the process of formatting

Suggested activities.

Music now comes on cassette tape or compact disk (CD). Discuss the early VCRs that came out in two formats, Beta and VHS. If you bought one type VCR, you could not use the other format. Relate this to Apple and IBM.

Define the term formatting.

IV. Exercise/Engagement:

1. Go to the *file manager* window
2. Explain the proper way to insert the disk into the drive
3. Insert the unformatted disk into the floppy disk drive
4. Refer to the menu bar at the top of window
5. Instruct students to select **disk** on menu bar
6. Instruct students to select **format disk** on the menu

Explain the entire procedure of formatting a disk..

V. Workplace Application: Increase the awareness of computer disk operation

VI. Evaluation/Comments:

Instructions for Formatting a Disk

Steps to **format**:

1. Take the mouse pointer up to **File**, click once.
2. Click on **Main**.
3. Double click the **File Manager** picture. (It looks like a file cabinet.)
4. Move the pointer to **Disk** and click once.
5. Click on **Format Disk**.
6. Put the disk in the disk drive. This is the **A:** drive.
(The silver side goes in first.)
7. Push the disk in until you hear it click.
8. Click **OK** on the monitor.
9. Click **Yes**.
10. Depending on the size and speed of your computer, the formatting may take a few minutes. When Formatting reaches 100%, the process is complete.
11. The computer will ask if you want to format another disk. Select **No** if you have no other disks to format.
12. Move the pointer to **File**.
13. Click on **Exit**.

You have just formatted your disk.

Typing a document

I. Understanding /Outcome: To successfully type a document on the computer

Materials: Computer system, worksheets, 3.5 diskettes

III. Demonstration

Activate prior knowledge.

1. Ask students to give their idea of using the computer to its fullest potential.
2. How can using a computer be beneficial to you at work or at home?
3. Can the computer make tasks easier?
4. Introduce word processing.
5. Ask students if they have any typing experience.
6. Review critical keys on the keyboard.

IV. Exercise/Engagement:

Type a short paragraph on the computer using the critical keys to assist you.

1. Tab keys
2. Backspace
3. Enter keys
4. Capitol keys
5. Shift keys
6. Delete keys
7. Arrow keys
8. Space bar

1. The emphasis on this lesson is not on the typing but on understanding how certain keys function. Those with limited typing skills can learn this without spending a great deal of time typing a long paragraph.
2. Explain how these keys will make typing documents much easier.

V. Workplace Application: To use basic word processing skills at work.

VI. Evaluation/Comments:

Opening and closing computer files

I. Understanding /Outcome: To successfully open and close a file on the computer

Materials: Computer system, computer software, 3.5 diskettes

III. Demonstration

Activate prior knowledge.

1. Use the analogy of a dresser with drawers as related to computer workspace. The dresser represent the software program, and the drawers are the files in that program.

Each document that the students types is a drawer that is inserted into the dresser when it is saved. The dresser drawer is opened when the file is in use and closed when the student is finished with the file. It is necessary to close the drawers of the dresser when you are finished with the software program.

Suggested activities.

Discuss the idea of a file and how a file is created in a software program
Explain how a file is opened and closed in a particular software program.

IV. Exercise/Engagement:

1. Enter a computer program in windows.
2. Create a new file in this program
3. Type some information into the new file.
4. Name and save this file on a disk.
5. Close the file
6. Exit the particular program
7. Find the saved file on the disk.

1. Suggested activities.
2. Explain how this process is carried out every time they need to locate a file.
3. Explain how some programs will only let you open one file at a time, and how others will allow you to open several files at the same time.

V. Workplace Application: Increase the awareness of the computer filing system.

VI. Evaluation/Comments:

Saving a document on a disk

I. Understanding /Outcome: Saving a document on to a disk

Materials: Computer system, computer software, 3.5 disk, *How to save a document on a disk*. The handout may have to be revised depending on the word processing program used.

III. Demonstration

Activate prior knowledge.

1. Explain the process of saving a document on a disk by equating saving a document to keeping an address book. When you meet someone new you add a name to the already existing book. You continuously change your address book as people move and switch numbers. It is not necessary to start a new address book every time you make changes in your book. Saving a document is the same concept, you type your original document and save it on a disk. When changes need to be made you do not have to start over you can just open the original file and make changes.

Suggested activities.

Brainstorm how saving a document on a disk is beneficial to someone as opposed to keeping hard copies.
List the participants responses.
List some of the advantages of saving a document on your diskette:

1. Other people can use and work with your data.
2. You can work on your documents at different computers.
3. You can complete your task a different times without starting your document over.

IV. Exercise/Engagement:

1. Enter a word processing program
2. Create a new program
3. Ask participants to type their names of their job positions on the computer
4. Explain how you name a document when you save a document.
5. Go step by step through the process of saving a document using the worksheet.
6. Explain how the title bar will change when the document is saved.

1. Suggested activities.
2. Explain how this process is carried out every time they need to save a file.
3. Explain the importance of saving a document and the consequences that are suffered when the process is not done properly.

V. Workplace Application: To learn the process of saving a document on a disk.

VI. Evaluation/Comments:

**How to save a document on a disk
(Using MS Write)**

1. Go to write on the computer.

Move the pointer to write -- click once.

2. On the blank screen type, "I know 10 things about computers."

List 10 things you know about computers.

Make each one a complete sentence.

3. Save your document on the disk.

- a. Move the mouse pointer to file --click once.

- b. Move the pointer to Save As --click once.

- c. Type the name of your file.

It will appear in the file name box.

The name has to have less than 8 letters, no spaces between words, no dashes or periods. Only one word names.

- d. Click inside the Drive box at the bottom right corner.

- e. Click on letter A.

- f. Move the pointer to OK button -- click once.

You have just saved your document on the disk.

Editing a document on a disk-Part 1

I. Understanding /Outcome: Editing a document in MS Write

Materials: Computer system, computer software, 3.5 diskettes, a sample document in its non-edited and edited form.

III. Demonstration

Activate prior knowledge.

1. What task might you complete and go back to at a later date? (Painting a room and then going back to touch up woodwork or trim.)
2. Discuss the differences between the non-edited document and the edited document..
3. Explain why the edited version is preferred over the non-edited version.

1. Ask for examples of tasks that you complete and then go back to at a later time to add finishing touches.
2. Use examples generated to show how the editing process works. .
When typing a document after getting your thoughts down on paper, it is important to go back to it and put the finishing touches on it.
3. Show a before and after example of an edited

IV. Exercise/Engagement:

1. Enter a word processing program
2. Create a new file named *devices*.
3. Ask participants to type the paragraph on the worksheet just like it is on the paper. (Do *not* make any corrections)
4. Save work and call it *wrong*.
5. Go step by step through the process of correcting the entire document using the backspace, delete, space bar, and the mouse.
6. Save their documents and call it *correct*.

1. Suggested activities.
2. Explain how this process is carried out every time they need to edit a file.
3. Explain the importance of editing a document
4. Explain how some programs will catch the mistakes that are made in a document for you. (Ex.: spell check, grammar check)

V. Workplace Application: Learn how to edit a document on a disk.

VI. Evaluation/Comments:

Name: _____

Editing Exercise

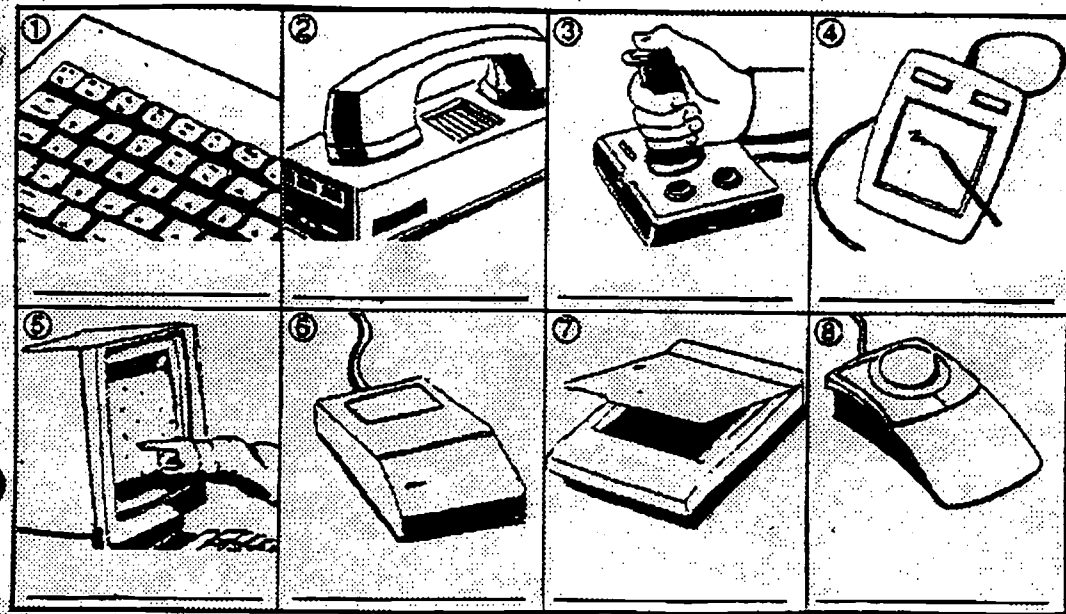
1. Go into the *Accessories* Window.
2. Open the icon that says *Write*.
3. Type or open a copy of *Input Devices*

Input Devices¹

Many devices allow us to enter information (input) into a computer so that the information can be processed. Input can either be data or programs., Some common input devices are listed below.

1. Keyboard--A keyboard is a device used to type data into a computer.
2. Joystick--A joystick is an input device often used for playing computer games.
3. Mouse--A mouse is a device with a rolling ball on the bottom. When a person moves the mouse, the cursor (pointer) on the screen moves. a mouse responds faster and allows easier input than a keyboard.
4. Trackball--A trackball is similar to a mouse, but it has a rolling ball on top. When the ball is rolled with the palm of the hand, the cursor moves on the screen.
5. Touch Screen--On a touch screen, one touches the monitor to make choices.
6. Light pen -- One enters data by shining a special light pen on the monitor. Often used by people who have limited use of their hands.
7. Drawing tablet or pad--One can enter drawings directly into the computer by indicating lines, shapes, and color images on a special tablet or pad connected to the computer.
8. Modem- Telephone signals are input into a computer through modems.

¹Computer Awareness, p. 7.



Reproduced from Computer Awareness.

4. Save the document on your disk in Drive A.
5. Name your document *devices*.
6. Make the following changes. (Parts *a* and *b* have the steps listed for you. Fill in the steps for editing from *c* to *j*.)

a. Make the title Bold and *Italic*.

- | | |
|---|---|
| 1. Highlight the title with the mouse. click. | 2. Go to Character on the menu bar -- click. |
| 3. Click on <i>Bold and Italic</i> . | 4. Click once in workspace. |

b. Double space the document.

- | | |
|---------------------------------|---|
| 1. Highlight the paragraph. | 2. Go to Paragraph on menu bar -- click. |
| 3. Click on Double space | 4. Click once in workspace. |

c. Underline each. key word, *Joystick*, *Keyboard*, etc.

1. _____ 2. _____
3. _____ 4. _____

d. Cut out the joystick sentence and paste it at the bottom.

1. _____ 2. _____
3. _____ 4. _____
5. _____ 6. _____

e. Copy the Keyboard sentence and paste it between # 4 and #5.

1. _____ 2. _____
3. _____ 4. _____
5. _____ 6. _____

f. Change the title and the first 2 sentences to *Italic*.

1. _____ 2. _____
3. _____ 4. _____

g. Type your name at the bottom in all capital letters. (Do NOT use the Shift key.)

h. Take *Italic* off the title.

1. _____ 2. _____
3. _____ 4. _____

i. Bold each key word. (Keyboard, Joystick, etc.)

j. Resave the document and name it Devices2.

1. _____ 2. _____
3. _____ 4. _____
5. _____ 6. Check the title bar for Devices2.

Editing a document on a disk - Part 2

I. Understanding /Outcome: To enhance understanding of editing a document

Materials: Computer system, computer software, 3.5 diskettes

III. Demonstration

Activate prior knowledge.

1. Review the previous editing lesson. Show a *before and after* example of an edited document. Brainstorm the differences between the edited example and the unedited document.
2. Why is the edited version preferred over the non-edited version?

Suggested activities:

1. Explain how this process is carried out every time a file is edited.
2. Explain the importance of editing a document
3. Explain how some programs will catch the mistakes that are made in a document for you. (examples: spell check, grammar check)

IV. Exercise/Engagement:

1. Enter a word processing program
2. Create a new file
3. Ask participants to type a paragraph on the worksheet just like it is on the paper. (*Do not* make any corrections)
4. Have students save their work and call it *draft*.
5. Go step by step through the process of editing the entire document using the menu bar and the mouse.
6. Have the participants re-save their documents and call them *correct*.

Suggested activities.

Use the menu bar to bold certain sections of the paragraph.
Demonstrate how to double space a document after it has been typed in singled space.
Show how to underline certain words in the document
Demonstrate how to cut and paste, and copy and paste parts of your document to the clipboard.
Demonstrate the bold, italic, center, align right, and align left.
Demonstrate how to change the fonts of part or the entire document.

V. Workplace Application: Increase the awareness of editing a document on a disk.

VI. Evaluation/Comments:

[Empty rectangular box for evaluation and comments]

The importance of spelling and spelling improvement on the job

I. Understanding /Outcome: To recognize the importance of spelling and improve spelling when writing on the job.

Materials: *Spelling, Troublesome Words*

III. Demonstration

Activate prior knowledge.

1. Have you ever worried about writing something because you were unsure about your spelling?
2. What do you think others think when someone's writing has several spelling errors in it.

Suggested activities.

1. Determine if spelling is a problem for your students. Discuss your own problems with particular words.
2. Use job or loan applications as an example of a time when spelling might be important.

IV. Exercise/Engagement:

1. Read *Spelling*.
2. Discuss other spelling strategies that work for students.
3. Discuss the problem of using the dictionary when you don't know how to spell the word.
4. Demonstrate how to use a dictionary using a word that someone in the class has difficulty spelling and probably could not find in the dictionary.
5. Have students start the page in their journals to track the words that are difficult for them to spell.

1. This may be read orally to the class, in pairs, or individually.
2. Draw out students' spelling strategies and validate them. There is no single "best" strategy. Different strategies work for different learning styles.
3. Model how a person might guess several spellings of a word before they find the correct spelling.
4. Approach this lesson as a review, even though it is probable that many people have never been shown how to use a dictionary. Include the topics of alphabetization, guide words, syllables, accent marks, pronunciation guides, multiple definitions, and parts of speech.

Possible topics to discuss/develop:

- vowels/ consonants

<ul style="list-style-type: none">• Prefixes/suffixes• Plurals• I before E rule• Homophones• Apostrophes• Capitalization	
---	--

V. Workplace Application: Improved spelling can improve the quality of written communication.

VI. Evaluation/Comments:

Spelling

There is some truth to the saying that good spellers are born, not made. Some people can spell words correctly with little effort. Others struggle with spelling their whole lives. Spelling is located in the part of the brain that holds *visual memory*. People who remember in pictures seem to find spelling easier. Quite often good spellers will say, "That word doesn't look right." They will rewrite the word until the *picture of the word* in their mind matches the *picture of the word* on the paper.

Keep in that *everyone has trouble with spelling* at times. No one knows how to spell everything!! The words in our language are constantly changing.

However, there are many ways to improve if you have problems spelling words correctly.

1. Keep a list of words that you have difficulty spelling
2. The more you read and write, the more practice you will have with words that give you trouble.
3. Guess at spelling words, then go to references like *The Bad Speller's Dictionary*, or a regular dictionary to check spelling.
4. Ask coworkers for help spelling. If you only ask for a particular word once, (because you add it to your list of difficult words) chances are good that person won't mind.
5. Since each of us learns differently, use all your senses to improve spelling.
 - Say it out loud and practice spelling it.
 - Write it several times on a piece of paper.
 - Draw it with your finger on the table so you can feel the movement of writing.
 - Close your eyes and try to picture the word.
6. Use a computer that has a word processing program with a spell checker.

Troublesome Words

A _____ I _____ Q _____

B _____ J _____ R _____

C _____ K _____ S _____

D _____ L _____ T _____

E _____ M _____ U _____

F _____ N _____ V _____

G _____ O _____ W _____

H _____ P _____ X _____



Using the Spell Check

I. Understanding / Outcome: To understand the use and operation of the spell check option in a word processing program.

Materials: Personal computer system, word processing program with spell check.

III. Demonstration

Activate prior knowledge.
What do you do if you do not know how to spell a word correctly?

The computer has a built in dictionary that will look the words up for you and spell them correctly.

Suggested activities.

Discuss ways that people find out how to spell words correctly.
Give examples of words that are difficult to spell. i.e.: schedule

Have students type the words the on the computer as best as they can.

Demonstrate how the spell check function works.

IV. Exercise/Engagement:

1. Type a misspelled word on the computer.
2. Highlight the word.
3. Use mouse to click on the tools on the menu bar.
4. Click on the option spell check on the menu.
5. Explain the spell check window to the students.
6. Demonstrate how the spell check works on one word or on an entire document.
7. Demonstrate the different spell check options that are available.

Once inside the spell check window the student will see the word in question displayed in the 'Not in Dictionary' box. Below that there will be a 'Changed To' box that will display the correct spelling of the word. The student can choose to change the word to the correct spelling or ignore the correction if the word is intentionally spelled incorrectly. Finally, if the computer has displayed the wrong word or the wrong tense of the word the student can choose the correct word from the 'Suggestion' box that has several word choices.

V. Workplace Application: To increase the awareness of the many word processing tools available.

* Spell check information taken from the Microsoft Word program.

VI. Evaluation/Comments:

[Empty box for evaluation and comments]

Purchasing a personal computer

I. Understanding /Outcome: To gain basic knowledge of how to purchase a personal computer.

Materials: Computer store circular

III. Demonstration

Activate prior knowledge.

1. What are you looking for when you buy a car? Brainstorm the different uses of motor home and Ford Escort? How important is quality to your decision to but a car? Does this vehicle have to be fast?(How much horse power)

Suggested activities.

List responses emphasizing that different people want different features in a car because of their intended use for it. Relate buying a computer to buying a car.

IV. Exercise/Engagement:

Discuss the different types of computers.

1. Laptops
 2. Apples
 3. IBM's
 4. IBM's compatibles
- Discuss the importance of the hard drive.
Describe memory . Give examples of size.
Explain what type of software are installed on the computer.
Explain the different types of printers.
Explain what components you get in a personal computer system.
Explain why there are differences in prices.
Discuss the various computer accessories.
Explain the alternatives of buying a brand new computer.(rent, used)

V. Workplace Application: To build their confidence in their ability to purchase a home computer.

VI. Evaluation/Comments:



Supplementary Lessons



Keeping a journal

I. Understanding /Outcome: To improve writing skills and effectively process new learnings, ideas, and personal growth through keeping a journal.

Materials: Spiral notebook or folders with lined paper.

III. Demonstration

Activate prior knowledge.

1. Introduce the idea of writing to yourself.
2. Discuss negative feelings about writing.

Suggested activities.

1. How do you feel about writing? Share experiences about likes and dislikes in regard to past school and work writing experience.
2. When do you need to write for yourself? (Home shopping lists, notes, work records, etc.)
3. Brainstorm the value of writing lists or notes to yourself?

IV. Exercise/Engagement:

1. Students write reactions to or feelings about writing in their journals.
2. Discuss and write about the many uses of writing.

1. When I say, "I'd like you to write . . ." What comes to your mind? Write a reaction. It can be one word, a phrase, a few sentences or a page, depending on the level of the student.
2. Discuss and write about the uses of writing at home and at work. Instructor will write responses on the board.

V. Workplace Application: Writing clarifies ideas, especially when stating a problem or explaining a situation on the job. The ability to state thoughts, ideas and information are critical on the job.

VI. Evaluation/Comments:

Note writing

I. Understanding /Outcome: To identify needed information and techniques for writing effective notes.

Materials: Samples of notes, both clearly and not clearly written.

III. Demonstration

Activate prior knowledge.

1. Discuss the need for writing clear notes.
2. Read samples of notes, some clear, some unclear.
3. Elicit characteristics of clearly written notes.

Suggested activities.

1. Have you ever had someone leave a note for you? What kinds of messages were left for you? Where?
2. Did you ever have to read a note that was hard to understand? Why was it hard to understand?
3. Why are some notes better than others? (Describe a good note.)

IV. Exercise/Engagement:

1. Have the students write a note to a partner about a job-related problem. The problem can be real or imagined.
2. Discuss the clarity of the note received.
3. Re-write the note if needed.

1. Discuss a few of the examples.
2. Discuss possible changes that could be made.

V. Workplace Application: To understand the importance of clear note-writing.

VI. Evaluation/Comments:

Parts and Purpose of a Newsletter

I. Understanding /Outcome: To understand the parts and purpose of a newsletter

Materials: Computer, Publishing software

III. Demonstration

Activate prior knowledge.

1. What is the difference between a newspaper and a news letter?
2. Do you receive any organizations' newsletters?

What would be the purpose of an employee-produced newsletter?

Suggested activities.

Brainstorm the differences between a newsletter and a newspaper. (size, length, content)
Discuss individual experiences with newsletters.

IV. Exercise/Engagement:

Look at a variety of newsletters and determine the most common parts.

List the parts the are most useable for the participants.

V. Workplace Application: To improve skills so an employee-produced newsletter can be generated..

VI. Evaluation/Comments:

Compiling a newsletter from previously typed documents

I. Understanding /Outcome: To begin compiling a newsletter from all the previously typed documents.

Materials: Computer, Publishing software

III. Demonstration

Activate prior knowledge.
Discuss the different portions of a newsletter and determine the which previously typed documents will be appropriate.

Discuss any other topics that the newsletter will contain.

Suggested activities.

Brainstorm how the participant will use previous learned skills to transfer the previous typed documents into the newsletter. (copy, paste, import function)

Instructor lists responses.

IV. Exercise/Engagement:

Use the produced newsletter layout to begin transferring documents into the newsletter.

Determined how to place the documents in the correct space.

Discuss topic length and the limited space available in the newsletter.

V. Workplace Application: To improve the communication skills and critical thinking.

VI. Evaluation/Comments:

Creating a newsletter format

I. Understanding /Outcome: To understand the steps of creating a newsletter format

Materials: Computer, Publishing software

III. Demonstration

Activate prior knowledge.
Discuss the different portions of a newsletter and determine the headings that will be used for each section.

Discuss how the participants want those headings to appear.

Suggested activities.

Brainstorm how the participant will use previous learned skills to edit the newsletter layout (bold, italic, underline, change fonts, center, add color)

Instructor lists responses.

IV. Exercise/Engagement:

Use the publishing software to help the participant to develop a newsletter layout. (computer assisted)

Determined how to edit newsletter headings.

V. Workplace Application: To improve the communication skills and critical thinking.

VI. Evaluation/Comments:

Fine tuning a newsletter for clarity

I. Understanding /Outcome: To understand the process of fine tuning a newsletter for clarity.

Materials: Computer, Publishing software, rough draft of previous newsletter

III. Demonstration

Activate prior knowledge.
Discuss the differences between a rough draft and a final copy of a document.

Discuss what is necessary to make the rough draft clear.

Discuss what makes a newsletter clear and readable.

Suggested activities.

Make sure everyone has a rough draft.

Put all the newsletters articles through spell check.

IV. Exercise/Engagement:

Have participants suggest ways to revise the instructors rough draft sample. Discuss reason for changes.

List responses.

Participants will revise rough draft of their newsletter.

1. Suggested activities. See *Glossary of Instructional Terms* for more information.

V. Workplace Application: The ability to revise and clarify written communication can improve job-related writing.

VI. Evaluation/Comments:

Maslow's 4 stages of learning.

Abraham Maslow developed a theory about how people learn. He believed there are 4 stages of learning.

STAGE 1. Unconscious incompetence. We don't know that we don't know. Think of energetic children who see someone riding a bicycle for the first time. They want to do it, but they don't realize that they don't know how. Sometimes we are in have no idea about what we will be expected to learn. Companies sometimes make decisions to purchase new technology that requires their employees to have more advanced skills. In many cases employees are the last to find out what skills they will need in order to adapt to the changes in the workplace.

STAGE 2. Conscious incompetence. We know that we don't know. This stage is the awakening. The little children get on the bicycle and fall off. They immediately go from the first stage to the second stage. Now they know that they don't know how to ride the bike. In work situations, employees find out that changes, like computerized machinery or equipment, have been planned or new processes are being put into place and they will need new skills. They may be very uneasy about this.

STAGE 3. Conscious competence. We work at what we don't know to try to learn it. This is where most learning takes place. People practice the skill they want and repeat it. The children carefully practice steering, balancing and pedaling and concentrate on doing it. Do you remember falling off your bike when you were a new rider when someone called to you and you turned your head and forgot to steer? This is the actual training or learning stage where employees are taught the skills or the processes that they need to continue to do their jobs. There is a wide range of feelings connected with this stage. For some employees, learning is challenging and exciting. For others, especially if they have had negative learning experiences in the past, this is a very stressful time.

STAGE 4. Unconscious competence. We don't have to think about knowing how do it. The skill happens at an automatic, unconscious level. The children can ride the bicycles without thinking about it. This is the time when employees have learned the skills they need to accept the changes that have taken place.

List of references

- Brown, Margaret. *Microsoft Windows 3.1 A Quick Study*. DDC Publishing. New York..
- Collin, Simon. *The Way Computers & MS-DOS Work*. DK Direct Limited & MicroSoft Press. 1994.
- Computer Dictionary, Second Edition*. MicroSoft Press. 1994.
- Computer Awareness*, MacDonald Publishing Company, 1993.

Answer Key

p. 35-36 1. Computer 2. chips 3. hardware 4. mouse 5. hard disk
6. memory 7. printer 8. floppy disk drive 9. floppy disks 10. processor
11. monitor 12. keyboard

p. 37. Computer System Hardware 1. monitor 2. floppy disks
3. printer 4. computer 5. floppy disk drive 6. hard disk drive 7. chips
8. memory 9. processor 10. mouse 11. keyboard

p. 39-40. 1. monitor, printer, mouse, computer, keyboard 2. left 3.
Central Processing Unit 4. Processor , Memory 5. delete and backspace
6. computer 7. page up key 8. at the top of the keyboard 9. processor
10. A = floppy disk drive C = hard disk drive 11. mouse 12. moves the
cursor down one line and opens a highlighted icon 13. The parts of the
computer system that can be seen and touched. 14. escape, control
15. Turns on the number pad. 16. monitor 17. floppy disk drive
18. Makes all letters capitalized. 19. memory 20. printer

p. 41-42 1. monitor 2. printer 3. mouse 4. computer 5. keyboard
6. Enter key- moves the cursor down a line and opens a highlighted icon.
7. Number keys-type numbers and are located above the letters and on the
right side of the keyboard. 8. Number lock key - turns on the number pad
on the right side of the keyboard. 9. Caps lock key - capitalizes all letters.
10. Shift keys- capitalizes a single letter when pushed down when typing the
letter. 11. Backspace key - erases letters to the left of the cursor.
12. Delete key - erases letters to the right of the cursor. 13. Page up key -
moves the cursor up on page at a time. 14. Page down key - Moves the
cursor down one page at a time. 15. Escape key - is located at the top left
corner of the keyboard and has many uses in software programs.

Name: _____
Code Number _____

Date: _____
Course Number _____

Preview Pre Mobile Technology

Directions: Answer the following questions by putting a circle around *Yes* or *No* or a check in the box. If you answer *Yes* to a question, write your answer on the lines.

1. Do you know what *computer hardware* is? Yes No
If yes, list as many examples of *computer hardware* as possible. _____

2. Do you know what *computer software* is? Yes No
If yes, list as many examples of computer software as possible. _____

3. How do you use computers on your job? Check ALL that apply.

- To write messages or reports
- To log in information
- To find information
- To store information that has been collected
- To organize information
- Other _____
- I never use computers on my job.

4. How do you use computers in your personal life? Check ALL that apply

- To write letters, notes, assignments, resumes
- To keep track of my finances (checking account, savings account)
- To play games
- To organize lists of names and addresses
- Other _____
- I never use computers at home.

5. Do you know what Icons are? Yes No

If yes, what are they? _____

6. Do you know the purpose of the following keys on the key board:

Enter key Yes No

If yes: What is the purpose? _____

Shift key Yes No

If yes: What is the purpose? _____

Esc Key Yes No

If yes: What does it stand for? _____

Caps Lock key Yes No

If yes: What is the purpose? _____

Num Lock key Yes No

If yes: What is the purpose? _____

Arrow keys Yes No

If yes: What is the purpose? _____

Backspace key Yes No

If yes: What is the purpose? _____

Delete key Yes No

If yes: What is the purpose? _____

Page Up key Yes No

If yes: What is the purpose? _____

7. Do you know what an input device is? Yes No

If yes, what is its purpose? _____

8. Do you know what an output device is? Yes No

If yes, What is its purpose? _____

9. Do you know how to type a document on the computer? Yes No

- | | | |
|---|-----|----|
| 10. Do you know how to save a document on the computer? | Yes | No |
| 11. Do you know how to format a disk to specific computer software? | Yes | No |
| 12. Do you know how to open a program on the computer? | Yes | No |
| 13. Do you know how to operate a program on the computer? | Yes | No |
| 14. Do you know how to close a program on the computer? | Yes | No |
| 15. Do you know how to edit a document on the computer? | Yes | No |
| 16. Do you know the parts of a computer window? | Yes | No |

If yes: List the parts? _____

Optional:

- | | | |
|---|-----|----|
| 17. In trucks, computers may be used to contact the main office. | Yes | No |
| 18. In trucks, computers may be used to keep track of the pickup and delivery of loads. | Yes | No |
| 19. In trucks, computers may replace log books. | Yes | No |

Name: _____ Date: _____
Code Number _____ Course Number _____

Review Pre Mobile Technology

Directions: Answer the following questions by putting a circle around *Yes* or *No* or a check in the box. If you answer *Yes* to a question, write your answer on the lines.

1. Do you know what *computer hardware* is? Yes No
If yes, list as many examples of *computer hardware* as possible. _____

2. Do you know what *computer software* is? Yes No
If yes, list as many examples of computer software as possible. _____

3. How do you use computers on your job? Check ALL that apply.

- To write messages or reports
- To log in information
- To find information
- To store information that has been collected
- To organize information
- Other _____
- I never use computers on my job.

4. How do you use computers in your personal life? Check ALL that apply

- To write letters, notes, assignments, resumes
- To keep track of my finances (checking account, savings account)
- To play games
- To organize lists of names and addresses
- Other _____
- I never use computers at home.

5. Do you know what Icons are? Yes No

If yes, what are they? _____

6. Do you know the purpose of the following keys on the key board:

Enter key Yes No

If yes: What is the purpose? _____

Shift key Yes No

If yes: What is the purpose? _____

Esc Key Yes No

If yes: For what does it stand? _____

Caps Lock key Yes No

If yes: What is the purpose? _____

Num Lock key Yes No

If yes: What is the purpose? _____

Arrow keys Yes No

If yes: What is the purpose? _____

Backspace key Yes No

If yes: What is the purpose? _____

Delete key Yes No

If yes: What is the purpose? _____

Page Up key Yes No

If yes: What is the purpose? _____

7. Do you know what an input device is? Yes No

If yes, what is its purpose? _____

8. Do you know what an output device is? Yes No

If yes, What is its purpose? _____

9. Do you know how to type a document on the computer? Yes No

- | | | |
|---|-----|----|
| 10. Do you know how to save a document on the computer? | Yes | No |
| 11. Do you know how to format a disk to specific computer software? | Yes | No |
| 12. Do you know how to open a program on the computer? | Yes | No |
| 13. Do you know how to operate a program on the computer? | Yes | No |
| 14. Do you know how to close a program on the computer? | Yes | No |
| 15. Do you know how to edit a document on the computer? | Yes | No |
| 16. Do you know the parts of a computer window? | Yes | No |

If yes: List the parts? _____

Optional:

- | | | |
|---|-----|----|
| 17. In trucks, computers may be used to contact the main office. | Yes | No |
| 18. In trucks, computers may be used to keep track of the pickup and delivery of loads. | Yes | No |
| 19. In trucks, computers may replace log books. | Yes | No |

Name: _____
Code Number _____

Date: _____
Course Number _____

Key for Pre Mobile Technology

Directions: Answer the following questions by putting a circle around *Yes* or *No* or a check in the box. If you answer *Yes* to a question, write your answer on the lines.

1. Do you know what *computer hardware* is? Yes No yes = 1

If yes, list as many examples of *computer hardware* as possible.

Central Processing Unit (CPU) Monitor, Keyboard, Printer (The group of parts that can be seen and touched that make up the computer system.)

2. Do you know what *computer software* is? Yes No yes = 1

If yes, list as many examples of computer software as possible.

Word Perfect, Microsoft Word, Microsoft Works, Excel, Access, Quickbooks, Quicken, etc.

3. How do you use computers on your job? Check ALL that apply.

No points for this question

- To write messages or reports
- To log in information
- To find information
- To store information that has been collected
- To organize information
- Other _____
- I never use computers on my job.

4. How do you use computers in your personal life? Check ALL that apply

No points for this question

- To write letters, notes, assignments, resumes
- To keep track of my finances (checking account, savings account)
- To play games
- To organize lists of names and addresses
- Other _____



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