ABSTRACT

CHOICE Word-Tool Match provides migrant youth the opportunity to use the computer in self-directed ways, while reinforcing job and role information presented in Basic Job and Role activity folders and workbooks. Learners select whether to play with one or two players, the career that will provide the theme for the game, and whether to play the easy or hard version. Learners match tool pictures to tool words displayed at the top of the screen. When each player has made eight decisions, a winner is declared and a summary of each learner's attempts is provided. Each time disks are used, random arrangement of tools creates a new challenge. Program objectives are to reinforce career concepts, identify tools related to particular workers, reinforce tool and worker vocabulary, practice basic computer keyboard manipulation, develop/increase computer awareness through computer assisted instruction, recognize symbols as representations of concepts, recognize graphic representations of objects, and recognize words as representations of objects. This teacher software manual details hardware requirements, backup copy procedures, student learning objectives, use of the program as a tutorial or in a classroom setting, step-by-step directions for using the program, instructions for turning the sound on or off, and a program outline and flow chart. (NEC)
This manual was prepared by Ilse M. Pitts and the Project CHOICE staff to accompany disk software. The CHOICE Word-Tool Match program was developed for the CHOICE project by Liz Kahl and Fred Podolski. The contents are based on the CHOICE Basic level materials. Reproduction without permission of CHOICE is expressly forbidden. ProntoDos (c) 1982 Tom Weishaar Beagle Bros. Inc. (Licensed), Hi-Res Character Generator (HRCG) (c) 1980 by APPLE Computer Inc. 10260 Bandley Drive, Cupertino, CA 95014 (Licensed), CELESTE by Leo Christopherson for 3/82 Creative Computing used with permission of author. Work on this project has been performed using funds received from the US Department of Education. The opinions expressed do not necessarily reflect the position or policy of the US Department of Education.
In addition to the Spanish materials and new versions of *Occupational Resources* (English), CHOICE now has software available to accompany its other curriculum materials. All of the software is available in both English and Spanish and is programmed for Apple computers. The software manuals are included here on ERIC microfiche and are available, along with the disks, from CHOICE. The software is designed to reinforce and enhance CHOICE information.

*Tool-Match, Word-Tool Match, Tool School (Level 1)*, and *Tool School (Level 2/3)* are all designed to accompany the Basic clusters for levels B1 - B4. There is one program disk for each cluster in Spanish and English (i.e. 16 disks per activity or a total of 64 disks for a complete set). Each disk presents the occupations covered by one cluster of the Basic materials (e.g. the B1 Arts and Humanities disk presents the Teacher, Artist, Musician, Dancer, Actor, and Puppeteer). One or two students may use a disk at the same time. The programs keep track of the number of successful tries by each student and the total number of turns. When the activity is complete, the screen displays the winner and a breakdown of the score. Each disk contains two levels of difficulty. Graphic and musical rewards are liberally spread throughout the programs to help maintain user interest. The sound option may be turned on or off by the teacher on any disk.

*Word-Tool Match* presents a matching activity in which the users are required to match tool pictures of the occupation they have chosen to the word for that tool printed at the top of the screen. The program selects the eight graphics provided for the
occupation and randomly situates those graphics in eight windows on the screen. The eight tool words randomly appear, one at a time, in a box at the top of the screen. The users, in turn, then attempt to select the picture which matches the tool word from the eight pictures on the screen. Each time the activity is used, the random order in which the words are presented and the random placing of the tool pictures ensure a new challenge. In the easy version, the tool pictures are highlighted on the screen once they have been successfully matched to a tool word. In the difficult version, all of the pictures remain unhighlighted until all eight have been matched.
INTRODUCTION

CHOICE Word-Tool Match provides the opportunity for youth to use the computer in self-directed ways, while reinforcing job and role information presented in the CHOICE Basic Job and Role (J&R) folders and workbooks. After using the folders and workbooks, the learner is able to use the Word-Tool Match disk independently to reinforce the information studied.

Player options are depicted graphically as well as in words throughout the program. The objective of the designers is that, given a short teacher introduction, the learner will be able to use the disk independently.

The learner(s) select(s) (1) whether to play with one or two players, (2) the career that will provide the theme for the game and (3) whether to play the easy or hard version of the game.

Word-Tool Match is an activity in which the learner(s) select(s) a tool picture to match the tool word displayed at the top of the screen. When eight matches have been made, a winner is declared by the program and a summary of each learner's attempts is provided. Each time the disk is used, random arrangement of the tools creates a new challenge.
HARDWARE REQUIREMENTS

Computer: Apple // Plus (minimum 48K)
or
Apple //e
or
Apple //c
One disk drive

MAKING BACKUP COPIES OF THIS PROGRAM

This CHOICE Tool Match Program Disk may be copied for your professional use. CHOICE requests that you do not further distribute copies without permission. Copyrighted materials have been used in developing this program. All interested parties may write or call CHOICE to obtain a copy at minimal cost.

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LEARNING OBJECTIVES

1. To reinforce career concepts
2. To identify tools related to particular workers
3. To reinforce tool and worker vocabulary
4. To practice basic computer keyboard manipulation
5. To develop and increase computer awareness and computer assisted instruction
6. To recognize symbols as representations of concepts
7. To recognize graphic representations of objects
8. To recognize words as representations of objects
USE: TUTORIAL OR CLASSROOM SETTING

It is the goal of CHOICE Word-Tool Match to reinforce the job and role information presented in the CHOICE Basic J&R Activity Folders and workbooks. The learner may choose the level of difficulty and is able to use the disk independently.

THE CHOICE WORD-TOOL MATCH DISK MAY BE USED IMMEDIATELY BY ANY STUDENT OR TEACHER WHO KNOWS HOW TO INSERT A DISK AND TURN ON THE COMPUTER.

Note: If you have not used an Apple computer before, you may want to review the "Know Your Apple" introduction disk. In any event, remember NEVER insert or remove a disk or press <CONTROL> & <RESET> if the disk drive operating light is on. In this manual special keys will be indicated within <> symbols; for example, if you need to press the key marked "return" on the right hand side of your machine, the instruction will say "press <RETURN>". After typing any information, you must press the <RETURN> key in order for the computer to interpret the information you have typed.

Insert the CHOICE Word-Tool Match program disk in the disk drive of the Apple computer and turn on the power switch. This will automatically run the program. If the Apple computer has been used with another program and is already on, simply insert the CHOICE Word-Tool Match program disk in the disk drive as above and then press the <RESET> key on the Apple // Plus, or, on the Apple //e or //c, press in conjunction the <OPEN APPLE> key, the <CONTROL> key and the <RESET> key. This will also automatically run the program.

NOTE: If there is no "STOP" option on the screen, use the <ESC> key to quit when the program pauses to accept input from the keyboard.
HOW THE PROGRAM WORKS

1. Insert the CHOICE Word-Tool Match program disk in the disk drive and turn on the power switch.

** TOUCH ONLY THE LABEL END OF THE DISK **

2. The disk drive will operate and you will see title screens on your computer monitor. When the disk drive stops and the screen instructs you to press return, press the <RETURN> key on the right hand side of the keyboard.

3. The disk drive will operate again and the learners' title screen will appear on the monitor. When the screen display shows:

![Title Screen](image)

4. Press the <RETURN> key. The screen display asks the learner if one or two players will use the activity. (This option is displayed graphically as well as in words and, after an introduction, the learner should be able to respond without the aid of the teacher.)

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U or M players?
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5. The learner now types a '1' or a '2' in the blank and presses <RETURN>.

6. The screen display will then request the first name of player 1.

7. The learner types his or her name and presses <RETURN>. (If two learners are playing, the display will now ask for the first name of the second player. Remember to press <RETURN> after typing the name.)
a. The program will accept any name up to nine letters in length.
b. If the learner makes an error when typing his or her name, it can be corrected by using the <DELETE> key on the upper right of the keyboard of the Apple //e or //c, or by using the <-- (left arrow) key on the lower right of the keyboard and retyping the name.
c. The program may be used with the <CAPS LOCK> key on the Apple //e or //c in either position. All letters entered from the keyboard will appear in capital form.

8. The monitor will now display the menu choice screen.

9. Use the <-- (left arrow) or --> (right arrow) key to move the flashing indicator to the desired option and press <RETURN>.

10. Pressing return when the flashing indicator is on an option will cause the following results:

a. Selecting "YES", the smiling face, indicates to the computer that the learner wishes to match the tools of the worker shown on the screen with the tool names.

b. Selecting "NO", the frowning face, indicates to the computer that the learner wishes to choose a
different worker; the disk drive will operate and a new worker picture will appear on the screen.

c. Use ← or → to choose.
Then press RETURN.

Selecting "HELP", the "?", indicates to the computer that the learner wishes to see a summary of the workers available on the disk.
1) The disk drive will operate and three workers will appear on the screen.
2) The learner presses <RETURN> to see other workers in the cluster.
3) Pressing <RETURN> again will cause the choice screen to reappear as in #8 above.

d. Use ← or → to choose.
Then Press RETURN.

Selecting "STOP", the raised hand, indicates to the computer that the learner wishes to stop for the moment. The program will reposition itself to the student title screen as in #3 above.

11. Once a worker has been decided upon (by pressing <RETURN> when the flashing indicator is on the "YES" option and the desired worker picture is on the screen), the screen will ask that the learner choose the easy or hard version of the activity, explained in #18 and #20 below.

Easy or Hard?

12. The learner types "E" or "H" and presses <RETURN>.

13. The game board will appear on the screen and the learner is asked to wait while the program positions the tools in the windows. (Each time the activity is used, the tools are placed in a random pattern.)

14. When the program is ready, the program will prompt the player(s) by showing a name of a player next to a pointing hand near the top of the screen.
15. If there are two players, the program randomly chooses one to go first. It does not matter which learner entered his or her name first in #7 above.

16. The learner prompted then checks the word printed at the top of the screen and moves the flasher by using the arrow keys to the picture which matches the word and presses (RETURN)

17. If the tool picture does not match the tool word, there is an optional "bleep" sound and the player is told that there is "NO MATCH"
   a. If there are two players, play now goes to the other player.
   b. If there is only one player, he or she is prompted to "TRY ANOTHER ONE".

18. If the tool word and tool picture do match, there is an optional musical reward, the word and picture flash. If there are two players, play now goes to the second player.
   a. Easy Version: the matched pictures will remain on the screen in reverse image and, if these windows are picked again in the course of the game, the program will note that it has already been matched and the learner may pick another window. There is no score penalty.
   b. Hard Version: the matched pictures return to the original display and, if picked again in the course of the game, the learner will be told that picture has already been matched, an incorrect match will be scored and play will go to the opposing player.
19. When all eight tools have been matched with the tool words, the screen will instruct the learner(s) to press <RETURN>.

20. A graphic and optional musical reward will declare the winner and a summary score screen will appear.

a. The scoring is proportional and indicates the number of matches compared to the number of tries.
b. Scoring is displayed both graphically and in words as in the example above. The "ghosts" indicate the number of tries and the "heads" indicate the number of matches.
c. In the easy version picking an already matched picture does not effect the learner's score.
d. In the hard version picking an already matched picture counts as a "try" for that learner.
e. A learner's tries are limited to 16.
   1) If one (16 tries) or both (16 tries each) learners reach the limit before all the tools and tool words are matched, the score summary is displayed, a message...
appears "YOU HAVE TOO MANY TRIES", but no winner is declared.

2) If all tools and tool words are matched within the limit, a winner will be declared.

21. When the learner presses <RETURN> the program will return to the choice screen as in #8 above.

TEACHER SOUND OPTION

When using the Word-Tool Match disk, the teacher has the option of turning the sound portion of the program on or off. When the screen requests the number of players:

A. Type "1" and press <RETURN>
B. Type "TEACHER" and press <RETURN>
C. Type "007" and press <RETURN>
D. Answer the question by typing "YES" or "NO" and press <RETURN>
E. Press <RETURN> when the screen advises you to do so

The disk drive will operate and return to the beginning of the program. The sound option chosen will remain on the disk until it is changed by following the above steps.
CHOICE Word-Tool Match

Outline

I. Educational Objectives

A. To reinforce career concepts
B. To identify tools related to particular workers
C. To reinforce tool and worker vocabulary
D. To practice basic computer keyboard manipulation
E. To develop computer awareness and computer assisted instruction
F. To recognize symbols as representations of concepts
G. To recognize graphic representations of objects
H. To recognize words as representations of objects

II. Main Concepts of Design

A. Appeal to multiple senses for greater learning
   1. Graphics and animation
   2. Optional sound at the discretion of the instructor
B. Graphics and word representations of concept
   1. Increase in vocabulary by matching of tool name to tool graphic.
   2. Aid for student understanding of program flow
   3. Aid for students with minimal reading capabilities
C. Player options
   1. One-player option for study and review
   2. Two-player option
      a. Game format
      b. Alternating turns upon player error
   3. Choice of two levels: easy or hard
      a. Easy level
         1) Tool picture left inverted upon correct match
         2) No loss of turn if previously matched picture chosen
         3) Choice of previously matched picture not counted as a try
      b. Hard level
         1) Previous correctly matched pictures not left in inverse
         2) Loss of turn if previously matched picture chosen
         3) Choice of previously matched picture counted as a try
D. Help option for menu to aid in choice of career to be played
E. Stop option available on menu of choices
F. Career choices presented by cluster
   1. One cluster per disk
   2. Five to six career options within each cluster

III. Program Flow

A. Introduction
   1. Input of number of players
   2. Name(s) input
   3. Choice of career to study with help option
B. Main routines
   1. Screen setup
      a. Eight tool graphics for chosen career input to screen
      b. Tool name input at top of screen
   2. Match input by player
      a. Use of arrows to move cursor to tool picture match of tool name
      b. Use of RETURN key to indicate match
   3. Answer check (sound optional)
      a. Match: graphics, sound and word reward; player retains turn
      b. No match: graphics, sound and word response; player loses turn
      c. Match of all eight tools to names ends round
   4. Summary of scores (sound optional)
      a. Reward page with graphics, animation, and sound
      b. Answer summary with graphics, animation and sound
   5. Return to menu for new choices
      a. Choice of new career for another round
      b. Stop option--resets program for new player(s)