CHOICE Tool School is an Apple computer software program designed to reinforce job and role information presented to primary-aged migrant students in the Basic Job and Role activity folders and workbooks. Learners must decide if randomly displayed tools are or are not used by the worker selected for the game theme. Learners may choose the level of difficulty (picture format or picture/word format) and use the disks independently. 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. Objectives of the program are to reinforce career concepts, identify tools related to particular workers, recognize symbols as representations of concepts, recognize graphic representations of objects, recognize words as representations of objects, reinforce tool and worker vocabulary, practice basic computer keyboard manipulation, and develop computer awareness through computer assisted instruction.

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. (MEC)
This manual was prepared by Ilse M. Pitts and the Project CHOICE staff to accompany disk software. The CHOICE Tool School 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.

**TOOL SCHOOL (Level 1)** presents a matching activity in which the users are required to match tool pictures to the worker picture of the occupation(s) they have chosen. (In this activity each user may choose a different occupation to work with.) The
program displays the worker (or workers) on the screen, then randomly presents eight tool pictures, one at a time, in a box next to the worker picture. The user must decide if the tool shown is used by his or her worker. (Mismatched tools are randomly selected by the program from other workers in the same cluster.) Each time the activity is used, the random selection of the tools presented ensures a new challenge. Users may request "HELP" from the computer and be shown the answer to that particular match. Such action is scored along with the number of successful matches and the total number of tries for each player. The number of "HELPS" requested is considered when the final winner is declared.

disk.

TOOL SCHOOL (Level 2/3) presents an activity similar to TOOL SCHOOL (Level 1) with the following variations. In Level 2 the tool word for each tool picture is displayed in a separate box on the screen at the same time as the tool pictures. In Level 3 only the tool word is displayed. For added challenge and interest at Level 3 the "HELP" option causes the picture of the tool to appear, and the present player is given a limited time in which to answer the question, "Does my worker use this tool?" If the player does not answer within the time limit, the opposing player is given a bonus turn. The bonus points are considered when the winner is declared.
INTRODUCTION

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

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

The learner(s) select(s) (1) number of players (one or two), (2) the worker that will provide the theme for each player's game and (3) level of play: level one (disk #1 - tool pictures only), level two (disk #2 - tool pictures with words), or level three (disk #2 - tool words only).

In the course of the activity each learner decides if randomly displayed tools are or are not used by the worker selected. When each player has made eight decisions or the stop option is used, a winner is declared by the program and a summary of each learner's attempts is provided. Each time the disks are 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

The CHOICE Tool School Program Disks 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 recognize symbols as representations of concepts
4. To recognize graphic representations of objects
5. To recognize words as representations of objects
6. To reinforce tool and worker vocabulary
7. To practice basic computer keyboard manipulation
8. To develop computer awareness through computer assisted instruction
USE: TUTORIAL OR CLASSROOM SETTING

It is the goal of CHOICE Tool School to reinforce the job and role information presented in the Basic J&R Activity Folders and workbooks. The learner must decide if randomly displayed tools are or are not used by the worker selected for the game theme. The learner may choose the level of difficulty (level #1-tools are presented in picture format, level #2-tools are presented in picture and word format, level #3-tools are presented in word format only) and is able to use the disks independently.

THE CHOICE TOOL SCHOOL DISKS 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 Tool School program disk of the level you wish to use 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 a CHOICE Tool School 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.
1. Insert a CHOICE Tool School 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 screen 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.)

4. The learner now types a '1' or a '2' in the blank and presses <RETURN>.

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

6. The learner types his or her name and presses <RETURN>. (If two learners are playing, the screen will now ask for the first name of the second player. Remember to press <RETURN> after typing each 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.
7. The screen will now display the menu choices. The pointing hand near the top of the screen indicates whose turn it is to choose a worker.

8. Use the <-- (left arrow) or --> (right arrow) key to move the flashing indicator to the desired option and press <RETURN>. The flashing indicator will always appear on the "HELP" option.

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

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

      Selecting "YES", the smiling face, indicates to the computer that the learner wishes to use the worker on the screen as the theme for the activity.

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

      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.

NOTE: Choosing a worker theme can only be done by selecting "YES" or "NO" at this point and cannot be done when reviewing the menu options in "c" below.
Selecting "HELP", the "?", indicates to the computer that the learner wishes to see a summary of the worker themes available on the disk.

1) The disk drive will operate and a worker will appear on the screen.

2) The learner presses <RETURN> to see additional workers.

3) Pressing <RETURN> after the last worker is shown will cause the choice screen to reappear as in #7 above.

d. Selecting "STOP", the raised hand, indicates to the computer that the learner wishes to stop.

1) The program will reposition itself to the learner title screen.

2) Pressing <RETURN> when instructed to do so will take the program to #3 above.

10. After a worker has been decided upon and if there are two players, the screen will ask the second player to choose a worker in the same manner. The players
may choose the same or different workers for their individual game themes.

11. If you are using disk #2, the screen will now ask if you wish level two or level three. (See sample screens in #14, below.) One or two players may use the activity at any level.

   a. In level two both the tool words and pictures appear on the screen.

   b. In level three only the tool words appear.

12. If you are using disk #2 and have selected to play level #3, the screen will now ask if you would like directions. If a player responds by typing "YES" and pressing <RETURN>, the directions will appear as shown below. If a player responds by typing "NO" and pressing <RETURN>, the program will continue as in #13 below.

   You will be given the NAME or a TOOL. You must decide if the WORKER you have chosen would use this tool.
   If you choose YES or NO, you will be told if you are correct.
   If you have FIVE SECONDS to answer.
   If you do not answer in time, your opponent has FIVE SECONDS to answer your question for a BONUS point.
   If you do not answer in time, your opponent has FIVE SECONDS to answer your question for a BONUS point.
   Если нет, вы вернетесь к меню для выбора новых работников для следующей игры.

13. The disk drive will operate and the game board will appear on the screen. (Each time the activity is used, the tools appear randomly.)

14. When the program is ready, the program will prompt the player(s) by showing a name of a player near the instructions at the bottom of the screen.
15. The options for answering appear at the bottom of the screen. The flashing indicator will always appear on the "HELP" option.

16. 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 #6 above.

17. The learner prompted then looks at the tool picture and/or word and moves the flasher by using the arrow keys to the "YES" (smiling face), or "NO" (sad
face), or "HELP", or "STOP" option at the bottom of the screen and presses <RETURN>.

a. By moving the flashing indicator to the "YES" (smiling face) option and pressing <RETURN>, the learner is saying, "Yes, this worker uses this tool".

b. By moving the flashing indicator to the "NO" (sad face) option and pressing <RETURN>, the learner is saying, "No, this worker does not use this tool".

c. Pressing <RETURN> with the flashing indicator on the "?" (HELP) option will cause the following:

1) In levels one (disk #1) and two (disk #2) the correct response in indicated, a help is added to the player's score and, if two are playing, play goes to the next player.

2) In level three (disk #2) the tool picture appears on the screen and the player is given five seconds to answer.

a) If the player is successful, one help and credit for a correct match is added to the score.

b) If unsuccessful, one help is added to the player's score and the opposing player is given five seconds to make the match and add a bonus point to his or her score.

c) Play then continues.

d) There is no penalty for a bonus point try. The player who attempts to answer an opponent's question for a bonus point retains his or her own turn whether or not the bonus try is successful.
d. By moving the flashing indicator to the "STOP" (raised hand) option and pressing ⟨RETURN⟩, the learner is saying, "I want to stop now".

1) A winner will be declared and the summary score screen will be displayed as shown on pages 12 and 13.

2) Either player may elect this option at any point in the game.

18. If the player makes a match, there is a graphic reward with optional sound, the tool picture will flash if it is used by the theme worker, and the next tool picture appears. (If there are two players, play now goes to the other player.)

NOTE: The disk drive will operate as each new tool picture is placed in the box.

19. If the player does not make a match, there is an optional "bleep", a message appears, and the next tool picture is shown. (If there are two players, play now goes to the other player.)

20. After each player has had eight tries, a graphic and optional musical reward will indicate the winner and a summary score screen will appear as shown on pages 12 and 13.

a. The scoring is proportional.

b. Every response, including "HELP", counts as a try except an incorrect match when attempting a bonus point (see #16 above).

c. At level #3 more than eight tries may be indicated on the summary screen as each player has an opportunity to make an additional response after requesting help.

d. As "HELP" is counted as a try, a player with fewer matches can win if the other player has used "HELP" too often.
e. Scoring is displayed both graphically and in words as in the example below. The "ghosts" indicate the number of tries, the "heads" indicate the number of matches, the "?’s" indicate the number of helps, and bonus points earned at level three are indicated by a "+".

f. If there is a tie score at level three, the computer checks the number of "helps" for each player and declares the player with fewer helps to be the winner.

21. When the players have reviewed their scores <RETURN> can be pressed to return to the choice screen as in #7 above.
The sound portion of the program may be turned on or off. The instruction will be stored on the disk and may be changed at any time by following these steps when the program asks for the number of players:

A. Type "1" and press <RETURN>.
B. Type "TEACHER" and press <RETURN>.
C. Type "007" when asked for your access code 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.
CHOICE Tool School

Outline

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

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. Aid for student understanding of program flow
   2. Aid for students with minimal reading capabilities
C. Player options
   1. One or two players
   2. Choice of three levels of difficulty on two disks
D. Help option for assistance in menu selection and giving responses
E. Stop option for user control of program
F. Career choices presented by cluster with five or six worker options in each

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 input of tools and answer menu
   2. Answer input by student (time limit in Level 3)
   3. Answer check (sound optional)
      a. Match: graphics and word reward
      b. No match: graphics and word response
      c. Help
         1) Levels 1 and 2: correct match with graphics and words
         2) Level 3: tool picture added to screen--timed response
            with option for opponent to answer if player fails
      d. Stop option: summary of round with scores
   4. Summary of scores (sound optional)
   5. Return to menu for new worker choices
CHOICE TOOL SCHOOL
FLOWCHART

TWO PLAYERS

Title

Enter name
one

Enter name
two

Review of
Occupations
on disk

Menu
1. 2.
3. 4.
5. STOP
6. HELP

Player 1
Response

Scoring

Player 2
Response

Scoring

8 Responses
or STOP?

8 Responses
or STOP?

Score
Summary

ONE PLAYER

Enter name

Menu
1. 2.
3. 4.
5. STOP
6. HELP

Teacher

Enter Access
Code

Sound

Y or N

Y or N