

Strategy: Mental Model

Content: Major components of the Internet

Title:

Number of participants: 1

Time required: 30 minutes

Target Audience: Internet beginners.

Goal of Activity: To learn the generic functions of the major components of the Internet.

Purpose of script: To describe how to use a computer-based interactive model of the Internet to generate a mental model of Internet components.

Learning Outcomes, Gagné's Taxonomy: Defined concepts.

Learning Outcomes, HEO Taxonomy: Understanding.

Learner Characteristics: Curiosity, anxiety.

Entry Skills: Ability to use a keyboard and mouse, with or without instruction.

Setting: Classroom with a Macintosh or IBM-compatible computer for each student.

Media: Macintosh or IBM-compatible computer; cross-platform authoring software.

Process:

1. Using a cross-platform authoring software program, present a graphic representation of the major components of the Internet and their functions and relationships including home computer, browser, modem, standard telephone lines, service provider, router, fiber-optic phone lines, several Internet destinations with routers, and search engines.
2. Explain the function of each item in the graphic display.
3. Present a screen showing the various items scattered at the edges of the screen. Ask the student to use the mouse pointer to drag each item from its current location to the correct location on the screen (target locations are marked so the result should look like the first graphic. Program this exercise to have items snap into place if they are correctly placed or snap back to their

previous location if they are improperly placed.

4. Present the user with various situations involving operations, options, and faults (e. g., error messages) requiring the user to generate a correct procedure or explanation.

5. Have the user log on to the Internet and explain to another user or the instructor how the various items in the model are affecting what they are doing.

Strategy Assessment: The strategy will be assessed with the following self-check:

1. Does the initial graphic accurately represent the functions and relationships among the components displayed?

2. Are there enough components displayed for a clear understanding to be achieved?

3. Are the explanations of each item clear and concise?

4. Do the explanations include information about functions and relationships of each item?

5. Does the programming of the scattered-components display function properly?

6. Are users able to describe the model when they are actually on the Internet?

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Reference: West, C. K., Farmer, J. A., & Wolff, P. M. (1991). Instructional design: Implications from cognitive science. Boston: Allyn and Bacon.