

**Nancy Clark**  
**ISD 613**

## **Strategy Scenario**

**Strategy:** Concept Mapping

**Content:** Medicine

**Title:** Disease Management Maps

**Time Required:** 8-12 hours spread out over a month

**Number of Participants:** 1-10

**Target Audience:** MDs, primary care residents

**Goal of Activity:** To develop cost effective, disease management protocols based on the latest clinical trials to be accessed at the point of care using computer technology.

**Purpose of Script:** To illustrate the use of concept mapping as a problem solving strategy in medicine.

**Learning Outcome(s), Gagne's Taxonomy:** Intellectual Skills – High Order Problem Solving

**Learning outcome(s), HEO Taxonomy:** Syntheses

**Learner Characteristics:** Extremely intelligent medical doctors in internship or higher post graduate level with ages ranging from 25 to diseased.

**Entry Skills:** They would need computer skills to include knowledge of basic HTML, or a web development tool like FrontPage. The web development tools built into Microsoft Office 97 will also work. This could also be done on Authorware, Hypercard, PowerPoint, Harvard Graphics or Adobe Acrobat. They need to be able to use Medline and other on-line medical references.

**Setting:** Academic medical department with nice computer lab facilities and a classroom.

**Media:** Data projector or overhead with LCD panel. Medline and other medical journals and textbooks.

### **Process:**

1. This is a longitudinal project for residents during orientation, which is usually the first month of the internship year. The teacher introduces the unit by teaching a session on Treatment of Asthma, or some other common chronic disease, by presenting the latest clinical trials on the topic, and cost effectiveness data, then using a branching map or flow diagram to illustrate

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the protocol. The map us then converted into an interactive computer program with hypertext links at points of decision to illustrate the talk.

2. The instructor demonstrates how the articles were assembled using Medline and other medical references.
3. The students are moved to the computer lab.
4. The instructor demonstrates how the maps were created using one of the programs listed above. The learners are given hands on training in the same process.
5. The residents are each given an assigned disease for which they are to research, then develop their own treatment map over the remainder of the month during scheduled time.

**Strategy Assessment:**

The last week of orientation, the residents are brought back into the classroom to present their disease management maps to the faculty where the protocols are discussed for completeness and usability. They are then added to the computer network where they can be accessed during patient care.

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**References:**

West, C., Farmer, J., & Wolff, P. (1991). *Instructional Design: implications from cognitive science*. Englewood Cliffs, NJ: Prentice Hall.