Spoehr Notes:

- “Use information in appropriate ways to solve problems or create new ideas.”
- Procedural & declarative knowledge – understand and carry out.
- “Describe thinking skills in ways that lead to effective classroom practice.”
- Knowledge representation in history – understanding of knowledge representation change with learning.
- Expert/Novice differences in understanding of history
  - Experts:
    - Learned more pieces of information (integrated and cohesive)
    - Integrated individual pieces of knowledge into organized structure.
    - Learn new information more quickly and thoroughly – less study
    - Advantage is only within their area of expertise.
    - Use fast, efficient procedures to retrieve and use info in “proceduralization domain”
    - Use node/link method.
    - More likely to:
      - Corroborate evidence – and look for contradictions.
      - Source evidence– who wrote it, when?
      - Contextualize evidence – cause & effect
      - Look for patterns of knowledge
  - Differences in questions, inferences and judgements.
- Uses node/link map to create a representation of historical knowledge.
- Electronic conceptual neighborhoods to teach history.
- Helps students acquire expert level knowledge representation.
- “Hypermedia provide one further advantage: they can provide students with examples of sound conceptual neighborhood structures in an environment where these can be used for authentic problem solving in the domain.”
- Pitfalls:
  - Student stumbles through the corpus in disorganized fashion.
  - Students miss sections.
  - Lacks an overview.
- Designed to be: “Structure that will encourage the student to acquire sophisticated conceptual neighborhood structures while engaging in problem solving. A locally coherent – globally differentiated structure.”
- Themes stack.
- “Making the ideas of knowledge representation and conceptual relationships much more central and explicit to both the students and teachers involved.”
- “Produce some permanent patterns of reasoning & investigation which will stay with them past the time in their classroom.”
- Question: Do we design a flow chart or a concept map? hmmmmmmmmmmmm