

Teaching and Learning Seminar Series Fall 2017

Using concept mapping to promote deep learning

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Learning objectives

1. To understand what concept map is and its pedagogical value.
2. To learn how concept mapping is implemented at our school.
3. To discuss ideas for implementing concept mapping in your teaching.
4. To implement concept mapping in your teaching to promote learning.



Definition

- Joseph D. Novak at Cornell University in the 1960s.
- Visual representation of concepts and hierarchical relationships.
- Start with the broader concepts; branch out to specific ideas.

[Novak, J.D.](#) (1991). Clarify with concept maps: A tool for students and teachers alike. *The Science Teacher*, 58(7), 45-49.

[Novak, J. D.](#) (1993). How do we learn our lesson? : Taking students through the process. *The Science Teacher*, 60(3), 50-55.

Pedagogical value

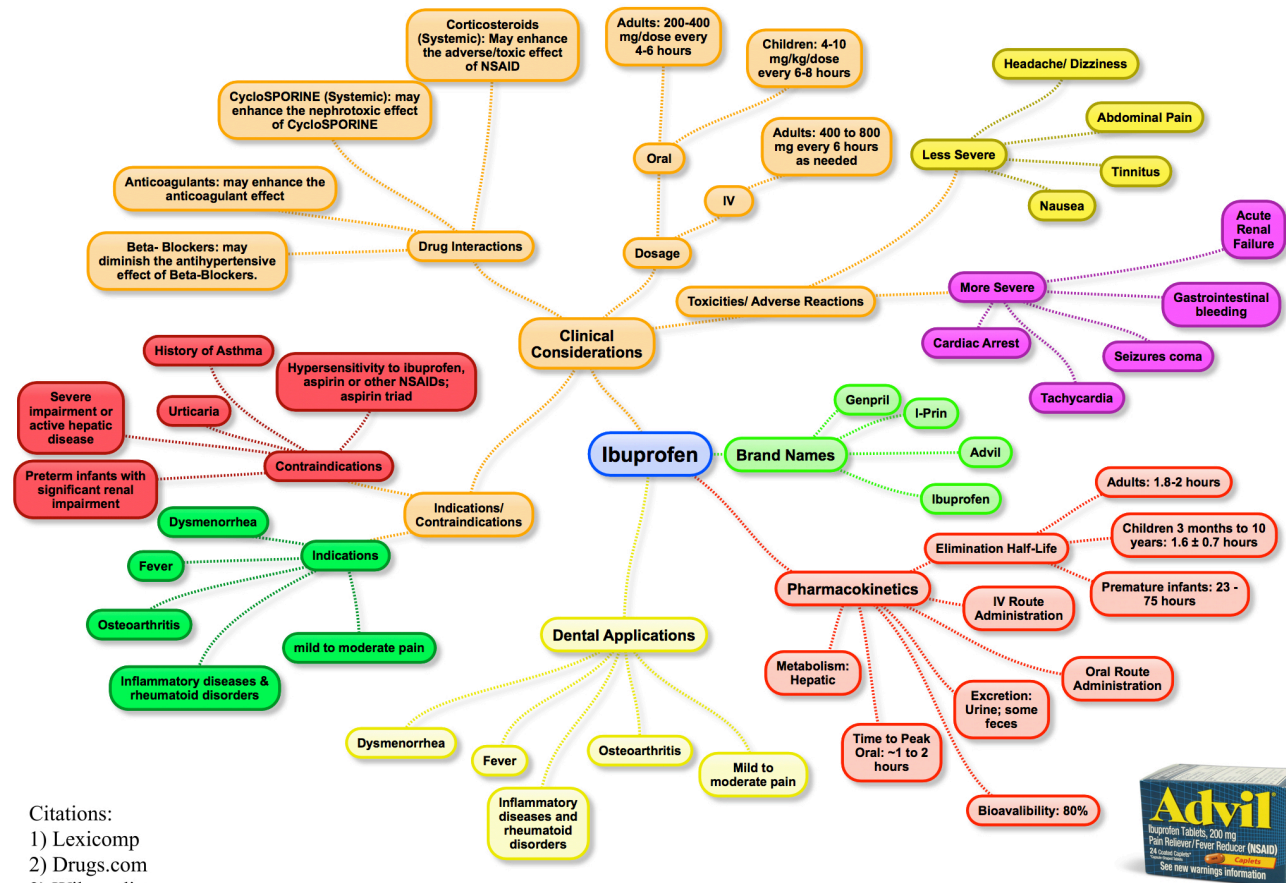
- Promote active and reflective learning.
- Help students see the big picture.
- Help students integrate knowledge.
- Help students develop higher level cognitive skills.
- Help students self-assess.
- Help faculty identify students' strengths and gap in knowledge.

Novak, J. D., & Cañas, A. J. (2008). The theory underlying concept maps and how to construct and use them. Retrieved October 30, 2017 from <https://cmap.ihmc.us/docs/theory-of-concept-maps>



Examples of concept maps (provided by Dr. Zeitlin)

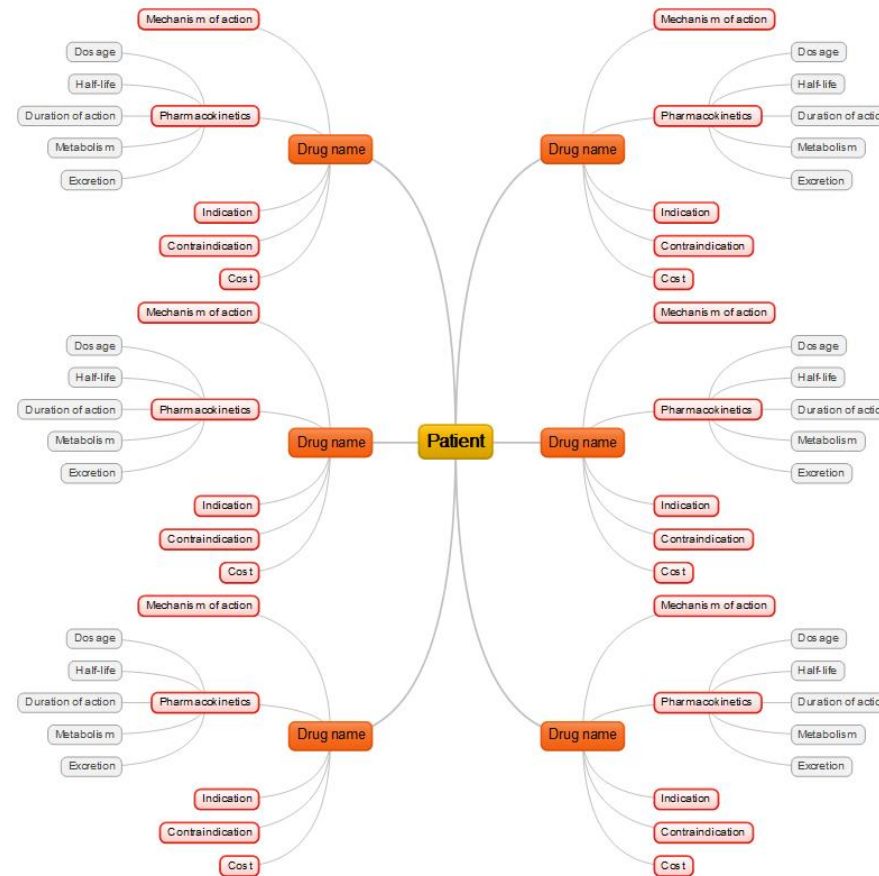
Student-created concept map



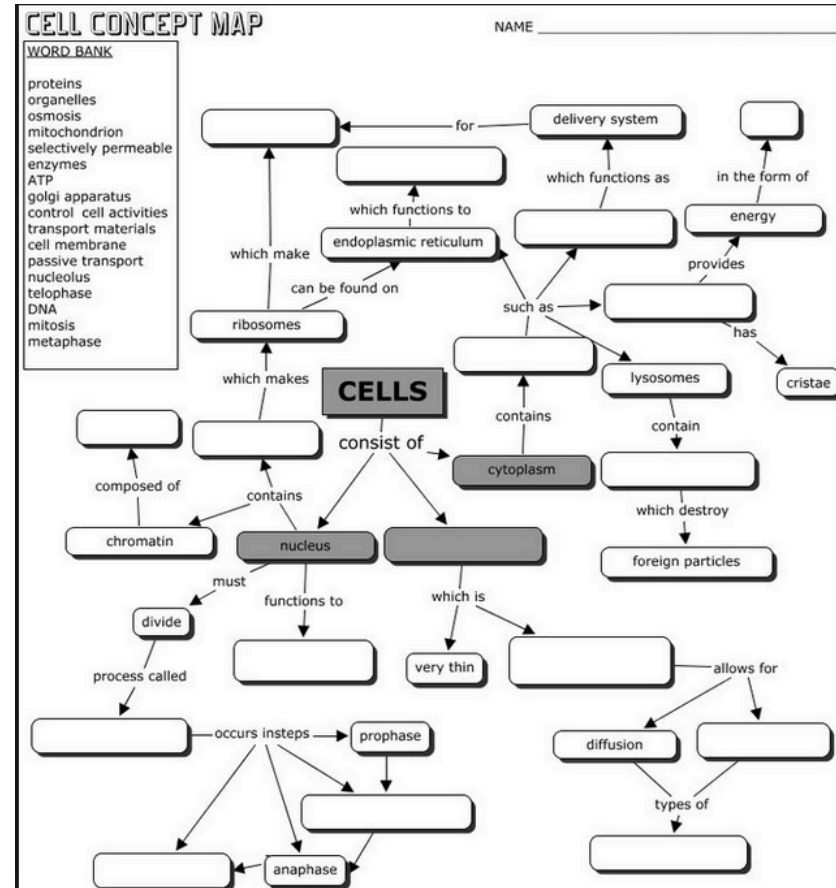
Citations:
1) Lexicomp
2) Drugs.com
3) Wikipedia

Examples of concept maps (provided by Dr. Zeitlin)

Instructor-created
concept map template



Examples of concept maps



(Source: <https://www.pinterest.com/lsgatto/concept-mapping/>)

Activity (Brainstorm)

How can you use concept mapping to promote learning in your course?

Some ideas of implementation

- Summarize texts.
- Project and/or case reports (drug history example on Canvas).
- Pre-and-post assessment.
- Individual or group work.
- Free form or guided (examples on Canvas).

Some concept mapping tools

- Mindmeister (free and paid) <http://mindmeister.com/>
- Text2Mindmaps (free) <https://www.text2mindmap.com/>
- Bubbl.us (free and paid) <https://bubbl.us/>
- Mindmaple (paid) <http://www.mindmaple.com/>



Additional resources

Teaching and Learning Seminar Series Canvas Site.