Cooking up concept maps

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Cooking up Concept Maps

Concept maps allow students to visually work through an idea for potentially useful search terms.

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NUTRITION INFORMATION
A common roadblock students experience in the research process is identifying central concepts in their research questions and devising useful ways to reframe search terms. Concept mapping is one instructional strategy that can be used to help students better identify the central concepts in their research questions and expand on other ways these concepts are articulated in the literature.

COOKING TIME
Cooking time is dependent upon the particular application.

ACRL INFORMATION DIETARY STANDARDS ADDRESSED
Standard One: 1.1.e, 1.1.c
Standard Two: 2.2.b

MAIN COOKING TECHNIQUE
Individual reflection, work in pairs, and large group discussion

Student Worksheet

Create a concept map.
- Central circle: Your research question
- Secondary circles: Main concepts from your research question
- Boxes: Alternate terms (synonyms, broader/narrower, or related terms) for each concept.

THE INSTRUCTION SESSION
1. Introduce self and gain attention—5 minutes
Share a personal story where you were looking for information on a given research question and had difficulty finding it. For example, searching for information on students being held back a grade, but finding it is indexed as grade repetition.

2. State the purpose of the session—1 minute
Identify main concepts of your research question and develop alternate terms (synonyms, broader/narrower, or related terms) for your concepts to facilitate searching.

3. Introduce the concept map—1 minute
A strategy students can use to help them think through their research questions before starting to search.
4. Model creating a concept map and have students create their own simultaneously—25 minutes
Identify main concepts: Create a large circle on the whiteboard. Write your main question in the center circle. Ask students to identify the main concepts of this research question. Draw circles extending off of the research question with one main concept per circle.
   i. Give students three minutes to start their own concept map and identify the main concepts of their research question. Roam the room providing help as needed.

b. Identify alternate terms: Restate that one of your problems in searching initially was that you fixated on a specific term and did not think to search using a different word. Ask students to come up with alternate terms (synonyms, broader/narrower, or related terms) for each main concept that you could have searched under to have had more success finding information. Draw boxes extending off the main concepts with one term per square.

c. Give students five minutes to identify alternate terms (synonyms, broader/narrower, or related terms) for each of their main concepts. Roam the room providing assistance as needed.

d. Have students share their maps with their peers and give suggestions of alternate terms.

5. Specialized Skills—Brainstorming

**ALLERGY WARNINGS**
It is important that the instructors give students feedback on their research questions in advance. This ensures that the concept map will be relevant when students begin searching for information.

**CHEFS’ NOTE**
You can leverage the concept map to introduce, model, and practice Boolean logic if desired (main concepts use AND connectors and synonymous concepts use OR connectors).

The strategy can be used as pre-work for a more substantial research inquiry. See *Whipping up the “Why” Paper* in Section 6.

A different way you can use concept mapping is as a brainstorming tool to help students explore a research topic with the purpose of identifying a research question.