

Concept mapping: Theory and practice

Step 1: Define the research question

Give a description of a research question or problem that you are working on.

Step 2: Choose concepts

Identify keywords that represent the main ideas from the above description and brainstorm others:

Step 3: Arrange the concepts

- Create a new map in CmapTools (under **File** choose **New Cmap**).
- To add your concepts, double click anywhere on the map.
- Move your concepts around on the map by clicking and dragging.
- Arrange concepts hierarchically or in a logical order.

Step 4: Connect the concepts

- Click on an arrow that appears above a concept and drag the connection until another concept is highlighted.
- You will be prompted to enter the relationship to form a proposition.
- You can also connect the linking phrase to a concept in the same way.
- If you pick up the arrows from a concept and let it go in the blank space it will create a new concept joined by a linking phrase.
- You can connect two concepts **without a linking phrase** by holding the shift key down when you create a link.
- Look for opportunities to create crosslinks that connect concepts from different domains of the map.

Save your concept map locally, in the cloud, or on a free public server.

- When you are ready to save, select **File > Save Cmap As**. At the top of the window, the computer, cloud, and globe buttons give you the option of saving your Cmap locally, in your cloud folder, or saving it on one of the public servers.
 - It is a good idea to save your map locally (computer icon) before adding it to the cloud or a public server.
 - To save to the McGill Library folder on a public server, select the globe button and then **IHMC Public Cmaps** (it will take several minutes for the folders to appear); scroll down and open the **McGill Library** folder. After you have given your map a title, you can hit **Save**. Once saved to a server, you will see an additional bar at the bottom of the Cmap indicating its web address.
 - If you are going to use CmapTools on different computers, you must first create a Cmaps cloud account by clicking on Cmaps in the Cloud in the **Views** window (**Window > Show Views**).
- When you go to the **Views** window (**Window > Show Views**), the Cmap you saved will appear under either the **Cmaps in My Computer**, **Cmaps in the Cloud**, or **Shared Cmaps in Places** heading.
- If you saved your map in the McGill Library folder, be sure to add the folder to your favorites (**Edit > Add to Favorites**).

Share your concept map with someone. Here are questions they can ask themselves:

- Is the map easy to follow?
- Are there concepts that should be added or removed?
- Are the concepts arranged in a logical manner?
- How does the map contribute to my understanding of the subject area?

Workshop Cmap: <https://bit.ly/377MH8A>

McGill Library guide to concept mapping: <http://libraryguides.mcgill.ca/conceptmapping/home>

IHMC CmapTools extensive help page: <https://cmap.ihmc.us/docs/cmaptools-help>