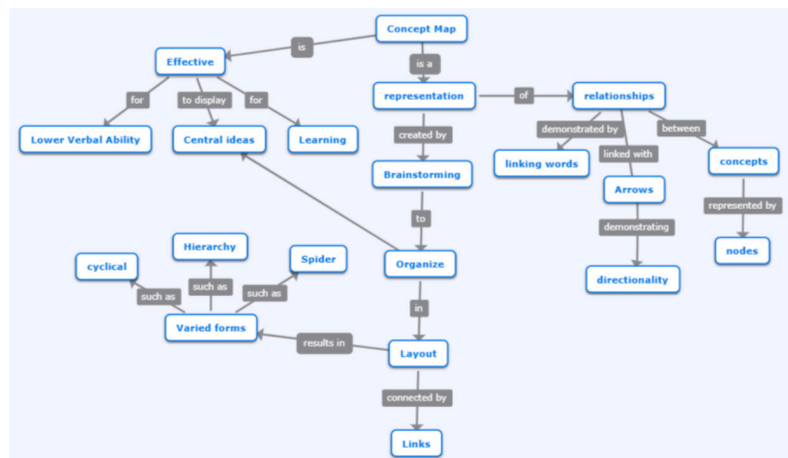# Map your learning

A step by step guide to concept mapping

Concept mapping

Concept mapping is the process of organizing your understanding of concepts and the relationships between concepts into a structured diagram. At minimum a map contains two concepts (usually nouns, called nodes) connected by a directional arrow labeled to describe the relationship between the two concepts (2 word descriptors, called linking words).

Why concept mapping?

- **Does it help learning?** Yes.
  Says who? A **summary of over 140 experiments** investigating the effect of concept mapping compared to learning by merely listening to lectures or reading, among other techniques.

- **Does it help assess learning?** Absolutely, with a touch of meta-cognition to boost.
  When drawing a concept map, you engage in cognitive processes of retrieval, elaboration, and organization which can help you identify what you know and where your gaps are.

- **Should I concept map because I'm a visual learner?** Nooooooooo.
  Learning styles are a myth. There isn't reliable and valid evidence that tailoring instruction to learners' perceived learning styles improves their learning outcomes.You can learn in any format - as long as you are paying attention. In fact, you are more likely to learn better when you use more than one way to learn.

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1

Focusing stage

Choose a question that guides and focuses
your mapping process.

- Ask yourself "What is my learning objective?" This would help narrow
  your guiding question.

- Maps are great tools to picture relationships between concepts. What
  system of relationships are you trying to capture?

- Very broad or very specific guiding questions may be restrictive. How
  much depth do you need to cover in this concept map?

Kick starter Examples

- In what way (or how) does X affect Y?

- What is the role of X in Y?

- What factors shape the occurrence of X?

- How is X formed?

2

Brainstorming Stage

Make a glossary list/parking lot of ideas.

- Think about the guiding question and write down all the key concepts
  and ideas that come to mind when you think of the guiding question.

- Ignore how relevant or irrelevant the words coming to your mind are.
  Just write it down. Sometimes, a concept you think irrelevant now,
  may become relevant as your concept map grows or vice versa.

- Avoid drawing a map at this stage.

3

Organizing Stage

Take a step back, and evaluate your concepts.

- Once you have all your concepts written, start identifying concepts
  that answer the guiding question. Are all these concepts necessary to
  answer guiding question?

- Evaluate your concepts. Is there a hierarchy of importance in the list
  of must have concepts? Is there a necessary flow of concepts, like a
  flow chart, web, or a cycle?

- Keep your parking lot alive - remove or add concepts as you feel
  necessary.

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4 Layout Stage
Draw your map.

- Write the guiding question at the top can help keep focus.
- Start with the biggest concept (in terms of number of relationship and/or importance).
- Connect concepts with directional arrows –one way, two way, dotted, colored are all great ways to build the map – as long as you define what they each mean for your map.
- There is no "wrong structure". Concept maps are typically hierarchical but they don't have to be. This is your representation of your response to the guiding question. It's likely going to look different than your friend's or partner's.

5 Linking Stage
Label the directional arrows.

- Add a linking word (or lable) on every arrow connecting every 2 concepts that describe the relationship between concepts. How are these two concepts related in context of the guiding question?
- When you're done with your map, a person must be able to read the concepts and linking word to form a meaningful sentence (even if it is with poor grammar).
- This is usually the toughest part of concept mapping. If you find yourself struggling, revisit the guiding question and try responding in paragraph or verbally to find the missing link. If you don't get it, it is still okay - you've now identified a gap in understanding you can fill as you learn!
- All concepts have at least one connection.

6 Revising Stage
Revisit and update.

- A concept map is an ongoing document. When understanding changes, repeat steps 2, 3, 4, and 5. Works great as a learning journal.
- Often concept maps change structure at revisions.

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Tools for concept mapping

- **Cmap Tools**
  Created by leading concept mapping researchers; stores concept maps as a web page, synchronous collaboration, research alongside construction, link other maps. Free

- **Google Drawings**
  Synchronous collaboration, revision history for accountability, research when constructing, use colors, images, audio, video, text, or insert hyperlinks to other documents in google drive documents to the latest version. Free.

- **Mindomo**
  Similar to Google Drawings but the free version does not allow multimedia inclusion in concept map and is restricted to three concept maps of unlimited space. Requires sign in.

- Pen and Paper / Post it / Whiteboard and Marker

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