Concept and Argument Mapping

Both concept and argument mapping are useful strategies for learning and managing assignments.

A concept or mind map is a visual illustration of the relationships between key ideas and concepts. Students can use concept maps/mind maps to develop critical thinking and enable deeper, interactive learning. Concept maps are particularly useful in helping students remember an extensive amount of course content and in identifying deeper meanings and relationships between concepts.

1. Select and read a chapter from your text, a relevant article or your lecture notes.

2. After reading and highlighting, make a note of the key ideas/concepts that are important to understanding the content of the reading. Keep these ideas/concepts to a one-two word description and write them down on a piece of paper.

   Rank the ideas/concepts you have identified from most general (least specific) to least general (most specific). E.g. 1 = Most general, 2 = general, 3 = somewhat specific, 4 = most specific

3. Select the broadest, most general (inclusive) concept from the reading. Write it at the top of a piece of paper and circle it.

4. Now organise the remaining concepts/ideas below the most general concept at the top. The most general concepts being closer to the top and the least general concepts being at the bottom of the page. You may use post-it notes for each concept to minimize erasing and editing.

5. Move outwards from the main concept at the top of the page and identify the relationships between the concepts you’ve identified. You can circle and group ideas and label key relationships to capture main connections between ideas.

6. Review your draft map and see if you can add your own ideas and connections.
7. You can now transfer this draft on to an electronic document or a new sheet of paper with the core ideas/concept at the center and the related concepts stemming out from it. Refer to Fig 1.0 for an example.

**Fig 1.0 - Example of a Concept Map**

- **Organisational Sustainability**
  - Profit Generation
  - Cost Effectiveness
  - Financial Sustainability
  - Retained Earnings

- **Environmental Sustainability**
  - Waste Disposal
  - Water usage
  - Energy Usage

- **Social Sustainability**
  - Staff Motivation
  - Career Pathways
  - Reward Systems
  - Succession Planning
  - Work-Life Balance

Legend:
- One Way relationship
- Two way relationship
Argument Mapping

Argument mapping involves visually structuring an argument for increased clarity and reflection on the strength of one’s argument. An argument map allows the user to identify the key components of an essay or report that contribute towards making a convincing argument. Toulmin’s logic (see http://www.writerspulse.org/2008/09/forming-argument.html) provides a useful framework with which a user can construct/deconstruct an argument.

a) **Argument** – The central argument, contention or conclusion

*Parents should buy their kids Mattel toys*

b) **Evidence/Data** – The reasoning to support a claim.

*Mattel makes high quality toys*
*Mattel has competitive prices*
*Millions of Mattel products are purchased by parents every year*

c) **Assumptions** – These are underlying beliefs or values that underpin the argument.

*Parents should buy their kids toys of some kind*  
(http://www.citruscollege.edu/apps/Pub.asp?Q=1199)

d) **Counter Argument** – view(s) in opposition to a stated claim/conclusion

*Mattel toys are a health concern, especially after it was revealed that lead-based paint was used in their products.*

Counter-claims or arguments will often have evidence and assumptions as well.

e) **Rebuttal** – An argument that address the claim(s), evidence and assumptions in a counter argument. A rebuttal will often involve evidence and assumptions as well.

*Mattel recalled the faulty products and took effective measures to ensure that there is no future lapse in product quality and safety.*
A useful rule to follow when constructing an argument map is to follow the Rabbit Rule.

The Rabbit Rule: every significant word, phrase or concept appearing in the contention of a simple argument must also appear in one of the premises/reasons (Van Gelder, 2010).

It’s called the “Rabbit Rule” because the rule parallels a rabbit appearing from the top of a magician’s hat, which is only possible because it is placed in the hat beforehand. This is not due to a sudden, magical appearance (Van Gelder, 2010). Thus the rule contends that a significant word/phrase/concept (The Rabbit) must appear in the reasoning provided if it is to support the contention being made.

Following this rule helps in the formation of strong arguments while teasing out inherent assumptions and possible objections. An example of an argument map is illustrated below in Fig. 2.0.

**Fig 2.0 – An example of an argument map**

![Argument Map Diagram]

Source: Van Gelder (2010)
Free Software for Concept Mapping

1.0 Freemind
http://freemind.sourceforge.net/wiki/index.php/Main_Page

2.0 Xmind
http://www.xmind.net/

3.0 Bubbl.us
http://bubbl.us/

Free Argument Mapping Software

Argumentative
http://argumentative.sourceforge.net/Download.html

References

