Visualize your research: Gain insight with concept mapping

Do you ever wish that you could see into your future? This researcher is stuck. She isn't sure where her project is going so she is trying to do a little fortune telling.

Let's see how concept mapping can help. It can't give anyone special powers, but as we work together, we will show the fortune teller how a map offers a visual overview of a research project.

Now, let's get going with four basic steps to building a concept map.
First of all, every good map responds to a focus or research question. The focus question spells out the problem that we are working on. For example, the fortune teller is interested in green electronics and has the question:

**How can wood be used as a material for electronics?**

Step number 2 is to choose concepts that describe the objects or events involved. On average, we would try to come up with 15 to 25 concepts that are important for answering the question.
The fortune teller already has broad concepts. The focus is on wood and electronics but she will need to brainstorm others. It’s okay if there are not as many as 15 in the beginning.

Step 3 is to arrange the concepts hierarchically, from general to specific.
The green electronics map is shaping up.

The last step is to connect concepts with words or phrases to define the relationships. This is actually the most difficult part of concept mapping. Concepts on their own are not as meaningful and don't demonstrate understanding, unless we describe how they are related.
Back to the fortune teller's map. It is important to be as brief as possible when connecting concepts.

The concepts and linking words will form propositions, or statements, so that the map can be read at any point.
The fortune teller has a lot more information to add to the map. When she identifies areas of the map that need more investigation, she can use concepts from the map as keywords to search Google Scholar and subject specific databases. As she continues to research her topic the map will grow.

The fortune teller sees the benefits now of looking back to map the progress she has made. She shows the map to a friend and describes it to him but he has a lot of questions.
Is the map easy to follow?

Are the concepts arranged in a logical manner?

Can concepts be added or removed?

How does it contribute to your understanding?

The questions are actually a big help since every map is a work in progress. She can even provide guiding questions for feedback, such as:

1. Is the map easy to follow?
2. Are the concepts arranged in a logical manner?
3. Can concepts be added or removed?
4. How does it contribute to your understanding of the subject?

Now it's your turn to practice the steps. How would you describe your research? By creating a representation of your knowledge, you can get a better idea of where you are headed.
Documents and links to websites can be added directly to concepts using a software, such as CmapTools. The structure can also be refined afterwards to make it more presentable.

You are welcome to make an appointment to come by for help one-on-one.

We look forward to seeing your maps!

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