ESPeak Mapping: List, Group, Compare, and Share

The ESPeak directions can be applied to any topic from any resource. Be sure to consult the SuccessTypes book also found at the SuccessTypes website.

Construct your map in the order described below:

1. **Listing**

- The first step is to create a list that will serve to start the concept map. It will have just enough terms/concepts to allow a prediction of which parts of the map are going to require the greatest amount of space and it will be composed mainly of headings if any are given in the material being mapped. If headings are not provided, then a scan for those concepts that are more general is needed.
- The best model for this is Google earth where continents are selected before countries, then states, then counties or regions, etc. The list requires only enough reading to make decisions about what is general and what is specific. In its rough form this list is still a mixture of terms that can contain other terms in the list. This allows you to compose an overview outline.
- Thus, a scan of all the material produces a short list that will eventually organize into an outline, e.g. a chapter on electron transport in mitochondria. Each major complex in the electron transport chain is a general topic containing the more specific terms that are the components of each complex. There are more details in the text or lecture, but those must wait until the next step. The end result is a simple outline with each complex as a main heading and the components of those complexes as subheadings.
- In summary, the list is the first set of decisions that need to be made. The decisions answer the question, "is this a major topic that groups other topics within it?" For simplicity at first, just use the major headings and section headings that are given in the notes. They might need to be paraphrased to fit into a bubble later, but this is not critical at first.

<u>Comments on Listing</u>. Once you have the list, just relax and accept that it is only a guess. For sensing types this is unnatural, but this tentative list will be updated later with more thorough reading. This process takes sensing students out of the habit of reading in a straight line through the material. This works well for novels, but learning in medical school requires “look around” reading. As you proceed in the next step, each smaller section will be read straight through the normal way.

2. **Grouping**

- Now take the list and mark (highlight, underline, circle) the most general topics in the list. Next, identify and use a different marking for terms that belong under each of those headings. At the end, your overview list will now have topics visually identified as either general topics or subtopics.

- Now start your map at the top of the page by linking the general topics in your outline to the top bubble so that they branch and spread out below. This is now your overview map. It can be changed and reorganized later if you choose to, but this is a good starting point for now.
- At this point, the detailed reading begins. Starting anywhere you choose, but the beginning is the best for sensing types, start reading to find the terms that group under each of the bottom bubbles. This may involve many individual branches but it needs to have at least two or it wouldn't make sense.
- If you are a sensing type, please be patient. As the front of your brain begins to adjust to this new way of discovering information, this step will become much faster. It's just like working out at the gym.
- The end result will be that, as you read to add more material to your map, you will begin to add more branches at lower levels. These are called levels in the hierarchy and they are an important insight to have during exams.
- In summary, the Grouping step starts the actual map with an overview that becomes the foundation for the final map. You can change anything you like as you learn the material. None of these is more correct than the other. Keep adding bubbles as you read and find concepts that belong in different categories. You will eventually have all of the facts and details in your map – but you won't have all the important relationships until the next step.

Comments on Grouping. The most important thing is that you are now making decisions about what belongs to what. This is how test questions are generated; they ask "which of the following terms matches the question in the stem the best." This decision making will cause consolidation into memory when you sleep that night, but simple reading will not lead to consolidation. So, concept mapping is a way of reading actively.

3. **Comparing**

- In this step you try to find connections between branches rather than straight down groupings. These links are more "side-ways" but they can also include local convergences. This lets you link together observations that might not get presented in lecture as a fact. For example, you might be mapping bacteria and the term, streptococcus, will be placed in a bubble that is connected to presenting signs and symptoms. Later in the map you will find streptococcus placed in a bubble connected to a disease outcome for heart valve damage. By linking "strep" from both situations you now have a visual record of a connection that could show up in a test question.
- You may have to draw long, winding, stretched-out links across your map, but this gets better, and neater, with experience. These links represent the discovery learning that you don't get when just sitting and reading.
- Sensing type students will gain in this skill faster by sharing their maps with one other classmate, and it has also worked very well in small study groups (these groups never break up!).
- In summary, the Comparing step is like the Grouping step, except that you will now have to go back through the material to try and find concepts that are similar, different, or that

show cause-and-effect. This is hard to put into a set of directions because the comparisons are not always there. But, it is important to always look for them.

Comments on Comparing. Comparing the branches of your concept map brings the insight that comes into play on the more difficult exam questions. These relationships torment sensing type students because they are not necessarily spelled out by the teacher. In a sense, they are left to the student's imagination. This is not very different from everyday life where much depends on our ability to learn enough so that we are not vulnerable to our imagination (except when we are reading novels!). Crosslinks that show comparisons are mysterious to both sensing types and intuitive types because they represent our highest learning and they rely more on discovery than on being precisely specified. The one thing that is certain is that, the more you use the front of your brain in constructing maps, the better it gets at doing just that.

4. **Sharing**

- Go back and speak or say your map. Use it to make a lecture on the topic. Work with a partner or just talk to your pet cat, but say it out loud. This is important to find misunderstandings that you can correct before the exam.
- In summary, start at the beginning with the top bubble and say the entire map out loud. No short-cuts! Looking at the map and recognizing it is not enough as this only engages the back of your brain and will not ensure long term memory. If and when you reach a point that you cannot make sense of a link in your map, stop and go back and read what is necessary to correct it to make sense. You may just have saved yourself from missing an exam question.
- Sharing uses the front of your brain since Broca's area, responsible for speech, is in the front. Without this step, you will not gain either the increase in thinking skills or the increase in long-term memory that is possible. It could cause you to give up on mapping entirely.

Comments on Sharing. You will be adding to your map as you verbalize it. It is inevitable that as you put a new subject into words that your brain will discover, magically, that it can clarify the map with a new addition. This occurs for both sensing and intuitive types. If you are comparing maps with a classmate, both of you need to have completed the map. Looking at someone else's map to learn the material loses all of the magic because the magic is not in the map, it is in constructing the map. If you don't build it yourself, your brain will not learn it.