Strategies for Introducing Concept Mapping to College Students\

Preparing for Concept Mapping

1. Make two lists of words (on a blackboard, overhead projector, etc.) using a list of familiar words for objects and another list for events. Ask students to describe how the two lists differ, making sure they recognize that one list is of objects and the other is of events.

2. Ask the students to describe what they think of when they hear one of the words on the objects list. Help them to recognize that even though we use the same words, each of us may think of something a little different. These mental images we have for words are our concepts.

3. Repeat step 2 using a word or words from the events list. Again, point out the differences in mental images, or concepts, of events. At this point you may suggest that one reason people may have trouble understanding one another is that sometimes peoples’ concepts for the same words are not identical.

4. List for students some words such as are, where, the, is, then, and with. Ask students what comes to mind when they hear these words. These are called linking words and are used together with concepts to construct sentences that have meaning.

5. Proper nouns are not concept words but rather names of specific people, events, places, or objects. Give students some examples to make sure students see the distinction between labels for regularities in events or objects and those for specific events or objects.

6. Using two concept words and linking word(s), construct a few short sentences on the board to illustrate how concept words plus linking words are used to convey meaning.

7. Have students construct a few short sentences on their own, identifying the concept words and linking words.

8. If you have bilingual students in the class, have them present some foreign words that mean the same events or objects. Point out that language does not make the concept, but only serves as the label.

9. Introduce some short but unfamiliar words such as dire, terse, or canis. These are words that stand for concepts they already know, but have a special meaning. Point out that the meanings of concepts are not rigid and fixed, but can grow and change as we learn more.

10. Choose a section of a textbook (one page is enough) and give copies to students. Make sure to choose a passage with a definite message. As a class, ask them to read the passage and identify key concepts (10 to 20 should be enough). Also, have students identify some linking words and concept words that are less important to the passage.

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Beginning to Map

1. List the students’ concepts and linking words on the board. Discuss with students which concept is the most important, most inclusive idea in the text.

2. Put the most inclusive concept at the head of a new list of rank-ordered concepts. List the next most general, most inclusive concepts, working through the list until all concepts are rank ordered. There will not always be agreement among the students on the ordering. This is ok because it suggests to students that there may be more than one way to see the meaning of the text.

3. Begin constructing a concept map, using the rank-ordered lists as a guide in building the concept hierarchy. Have students help in choosing good linking words to form the propositions shown by the lines on the map.

4. Look for cross links between concepts in one section of the map and concepts in another part of the map. Have students help to choose linking words for the cross links.

5. Most first effort maps have poor symmetry or some concept clusters are poorly located relative to other more closely related concepts or clusters of concepts. Reconstruct the map if this would be helpful. Point out to students that at least one and sometimes two or three reconstructions of a map are needed to show a good representation of propositional meanings as they understand them.

6. Discuss the concept mapping scoring criteria that you will be using and score the map constructed. Point out possible structural changes that might improve the meaning, and perhaps the score, of the map.

7. Have students select a section of text or other material and repeat the above activity on their own (or in small groups).

8. Student-constructed maps can be presented to the class on the blackboard. “Reading” the map should make clear to other students in the class what the text was about, as interpreted by the map maker.

9. Have students construct a concept map for ideas important in a hobby, sport, or special interest they have. These might be posted around the room and informal discussion encouraged.

10. Incorporate one or two concept mapping questions on your next assignment or test to illustrate that concept mapping is a valid evaluation procedure that demands hard thinking and can illustrate understanding of the subject matter.