Concept Mapping to Facilitate an Understanding of Concept Mapping Laboratory Exercise

Patrick J. Davis, College of Pharmacy, University of Texas at Austin, TX 78712-1074

ABSTRACT

The concept mapping laboratory exercise is conducted after the first three learning strategies (above) are completed to allow students to develop their own concept maps of drug metabolism. Few students have had experience with concept mapping, but all strategically understand the approach used in the strategic drug metabolism class, and their posttest scores are significantly higher than their pretest scores. The laboratory exercise is used to facilitate the transition from an initial group-dynasty introduction to concept mapping, and culminates in the development of an individual, highly-personalized concept map by each student.

THE CONCEPT MAPPING LABORATORY EXERCISE

Step 1: Group Brainstorming of Terms

All the students are given a sheet with 36 or more drug metabolit names printed on it. Students are instructed to write down as many terms as possible. Then, they are given a few minutes to discuss the terms and how they relate. This activity is designed to encourage active participation and critical thinking.

Step 2: Consolidation of Terms to Identify Concepts

The students are then asked to consolidate the terms into meaningful groups. This activity is designed to promote logical reasoning and critical thinking.

Step 3: Individual Construction of a Draft Concept Map

Each student is provided with a blank concept map template and asks to construct a draft concept map based on the terms generated in the previous steps. This activity is designed to promote critical thinking and problem-solving.

Step 4: Discussion and Comparisons of Maps

The students are asked to discuss their concept maps with their peers and compare their maps with each other. This activity is designed to promote critical thinking and problem-solving.

Step 5: Faculty Presentation of a Concept Map

The faculty member presents a concept map and explains the thought process behind it. This activity is designed to promote critical thinking and problem-solving.

Step 6: Refinement of the Final Concept Map

The students are asked to refine their concept maps based on the faculty member's presentation. This activity is designed to promote critical thinking and problem-solving.

CONCLUSIONS

Concept mapping is a well-established educational tool for students to personalize and integrate their learning. It uses a graphical, conceptually linked framework. While not all students can continue to approach this as they progress through the curriculum (e.g., mapping organ systems, disease states, drug classes, etc.), many student (particularly visual learners) will find this an important tool for facilitating their studies.

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