

## **Evidence based concept mapping: Practical classroom applications**

Speicher, TE & Martin, M: Rocky Mountain University of Health Professions, Provo, UT

A concept map is a graphical and cognitive tool that enables learners to link together interrelated concepts using propositions or statements that answer or define a posed problem. The identification and organization of the relationships between concepts are the hallmark of concept mapping that build knowledge acquisition and clinical reasoning skills. Concept mapping does not emphasize linear relationships but the complexity of reciprocal relationships, linking new knowledge to prior knowledge. The brain works by making analogical links between past and current information and utilizes these links to create new mental models for future application to solve a current or future problem. Through examination of concepts, their associated problems and how best to solve them based on evidence, concept mapping complements the instruction and assessment of educational competencies. The concept mapping process facilitates a student-centered learning approach, which can be peer, instructor evaluated, or both. As an assessment tool, concept mapping reveals a learner's grasp of a concept or topic. Moreover, concept mapping can be used to assess a student's research and presentation skill. For example, did the student identify appropriate resources, synthesize and apply the evidence correctly, identify key relationships between concepts or the evidence, demonstrate an ability to interpret statistical outcomes, etc.