Concept Mapping as a Learning Tool for Fashion Education

Charity Armstead, Iowa State University, USA

Keywords: Concept maps, mind maps, textiles, teaching

Background and objective. Studies have shown that concept mapping can be an effective learning tool to help students retain information (Anderson, Johnson, & Singson, 2013), think critically (Anderson et al., 2013; Kaddoura, Van-Dyke, & Yang, 2016), and improve understanding and mental organization of material (Liu, Chen, & Chang, 2010; Thompson & Licklider, 2011). Based on student comments that they needed additional help understanding the connections between concepts taught in a previous textiles course, concept mapping was used as a final project for an introductory textiles course at Lipscomb University in Spring 2017 to help students understand linkages between concepts and to assess their understanding of the content. Concept mapping was also used in a fashion industry course for first-year fashion students at Brenau University in Fall 2017 to show relationships between parts of the fashion industry and to illustrate related careers.

Implementation. Near the beginning of each semester, the students were shown several examples of concept maps from different disciplines and practiced creating several group concept maps in class. In the textiles course, students created practice concept maps showing relationships between fiber types. In the fashion industry course, students practiced mapping influences on individuals' clothing choices. For the textiles class, they were asked to include all the textile components and their variations, serviceability characteristics, aesthetics, and the relationships between and among concepts. For the fashion industry class, students were asked to include the organization of the fashion industry, career options, social and cultural influences on fashion, key terms from the text, the development and life cycle of fashion items, and the relationships between and among concepts. Students were allowed to create concept maps either on a computer or by hand. Different students opted to use a variety of different mediums for the project, ranging from color-coded construction paper and foam board, to Adobe Illustrator, to Prezi presentations.

Effectiveness. The concept maps demonstrated significant understanding of the relationships within the course material, and students commented that the concept maps helped to organize their thinking and to clarify concepts. In a few cases, misunderstandings were revealed through the concept maps that were not visible in other assessment tools, and the concept maps allowed these misunderstandings to be identified and corrected. In a few cases, students did not provide an adequate level of detail in their concept maps; comments from the students indicated that the

less-detailed concept maps were completed at the last minute, despite the students having been encouraged to begin work on the maps earlier in the semester.

Plans for revision/continuation. Concept maps will continue to be used as a final project in both the textiles class and the fashion industry class. In future iterations of the project, students will be asked to submit a draft of their concept map for comments and revision prior to submission of the final assignment. This should encourage a greater level of detail and deter students from waiting until the day before the due date to begin the assignment.
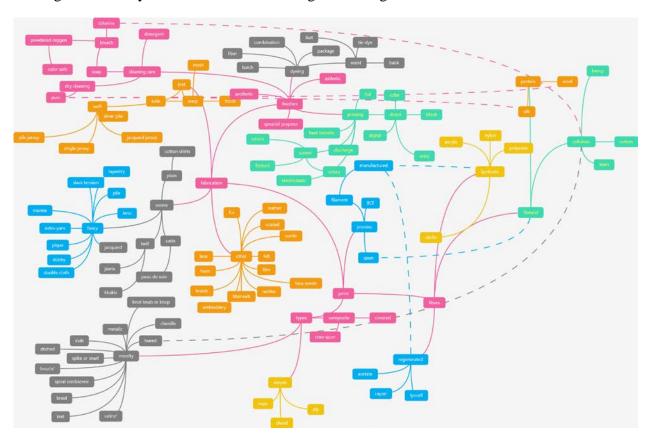

Figure 1. Concept map created by a student for textiles class. 2017.

References

Anderson, P. H., Johnson, C., & Singson, K. (2013). Teaching Infection Prevention Using Concept Mapping Learning Strategies. *American Journal of Infection Control*, *41*(6, Supplement), S58. https://doi.org/10.1016/j.ajic.2013.03.121

Kaddoura, M., Van-Dyke, O., & Yang, Q. (2016). Impact of a concept map teaching approach on nursing students' critical thinking skills. *Nursing & Health Sciences*, *18*(3), 350–354. https://doi.org/10.1111/nhs.12277

Liu, P.-L., Chen, C.-J., & Chang, Y.-J. (2010). Effects of a computer-assisted concept mapping learning strategy on EFL college students' English reading comprehension. *Computers & Education*, *54*(2), 436–445. https://doi.org/10.1016/j.compedu.2009.08.027

Thompson, J. R., & Licklider, B. L. (2011). Visualizing Urban Forestry: Using Concept Maps to Assess Student Performance in a Learning-Centered Classroom. *Journal of Forestry*, *109*(7), 402–408. https://doi.org/10.1093/jof/109.7.402