


**RESEARCH
SNAPSHOT**
**Concept mapping to support university
academics' analysis of course content.**

Amundsen, C., Weston, C., & McAlpine, L. (2008). Concept mapping to support university academics' analysis of course content. *Studies in Higher Education*, 33, 633- 652.

Purpose

This study examined use of concept mapping as an initial step in course design. Foundational to this study are two ideas: 1) faculty members' instructional decisions are guided by their understanding of subject matter, and 2) in order to rethink, analyze, and reflect on their course content, teachers need to make the basis of their instructional decision-making explicit. Concept mapping provides a way to articulate instructional rationale, enabling reflection and change.

Background

The authors noticed that identifying outcomes—an initial step in course design—was challenging for instructors, and often resulted in descriptions of course content in the form of lists, generated from reviewing old course outlines or textbook structures. This was problematic because it conceptualized course content as discrete “chunks” of information, as opposed to being cohesive and related.

Findings

After three years of data collection, the authors engaged in data analysis by looking for emergent themes in the verbatim interviews of the 11 tenure-track participants. Data analysis resulted in 12 emergent themes related to the research question (additional themes unrelated to the research question were disregarded):

(1) Rethink course concepts (2) Change relationships of course concepts in map (4) Adjust relative importance of course concepts (4) Bring parts of the course together (5) Identify false assumptions about prior knowledge (6) Link other course aspects to new course conceptualization (7) Use of CM with students (8) Other uses of CM (9) Engaging in CM process (10) Impact of group interaction (11) Benefits of and problems with CM (12) Use disciplinary knowledge to inform the development of the concept map.

Concept Mapping Purposes

“First, an instructor’s personal understanding of the course content should serve as a lens through which all other course design elements are considered. Secondly, the explicit and personal representation of course content should be clearly and explicitly linked to statements about goals for student learning in that course. Third, the process of concept mapping should prompt the instructor to examine unclear or taken-for-granted assumptions about the structure of knowledge in the course. Further, it is our long-term purpose that concept mapping will prompt academics to consider how students learn, and how to move students towards thinking in a disciplinary manner (pp. 636-637).”

Primary Take-away

If instructional decisions are based on subject-matter knowledge, then subject-matter knowledge needs to be explicitly articulated in order to make sound instructional decisions; this study found that concept mapping with peer review in instructional design workshops aided faculty in achieving this explicit articulation.