Supplemental Digital Appendix 1
Pre-course Survey[a]

Background information:

1. Please indicate your age.
2. Please indicate your gender.
3. Please tell us your major or concentration in college.
4. What is the highest level of education that you completed?
5. Please indicate if you have had any experience in using any kind of Concept Maps. If, yes, please explain.

Tolerance of ambiguity scale (26 items):

Please indicate how strongly you AGREE or DISAGREE with the following statements.
[1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree]

1. It bothers me when I have to work on ambiguous problems.
2. It bothers me when I am in a group where I DO NOT understand the other students' behavior.
3. It bothers me when I am in a group where I have NO control.
4. It bothers me when I am UNABLE to follow another person's train of thought.
5. It bothers me when I DO NOT know hoe other people in my team react to me.
6. It bothers me when I have to work on a problem where there is a possibility of NOT getting a clear-cut unambiguous answer.
7. It bothers me when I am uncertain about the responsibilities involved in a particular task I have to do.
8. It bothers me before an important task I am NOT sure how long it will take to complete.
9. I try to avoid solving ambiguous problems.
10. I try to avoid tackling complex problems.
11. I try to avoid problems that DO NOT seem to have one "best solution".
12. I try to avoid problems, which are so complex some people call them "mind-boggling".
13. Ambiguity stops me from having a firm opinion.
14. It frustrates me NOT having a firm opinion.
15. When it is time to act ambiguity paralyzes me.
16. Being uncertain means I lack confidence.
17. The best part of working on a jigsaw puzzle is putting in that last piece.
18. A good task is one where what is to be done and how it is to be done are always clear.
19. I prefer familiar learning situations to new ones.
20. I rarely find myself looking for a new aspect of a concept, rather than trying to practice what is known to me.
21. I generally prefer familiarity to novelty.
22. I prefer well-defined problems to ambiguous ones.
23. I try to avoid taking risks in class.
24. I like to use familiar ideas to solve a problem.

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25. I prefer to use learning tools that I am familiar with compared to new ones.
26. I good teacher is one who makes you wonder about your way of looking at things.

Please describe how you fell about making mistakes in small group discussions.
[1=very comfortable, 2=quite comfortable, 3=comfortable, 4=somewhat comfortable, 5=not comfortable]

Teamwork scale (20 items):

Please indicate how strongly you AGREE or DISAGREE with the following statements.
[1=strongly agree, 2=Agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree]

1. Several members of a team are the main contributors to the success of a team.
2. Each member of a team contributes substantially to the success of a team.
3. My work in a team is usually integrated into the outcome.
4. When I work in a team I see harmony.
5. I prefer working in a team.
6. In a team all members share how to organize.
7. Working in a team helps me in my learning.
8. When I work in a team on a problem it brings me clarity.
9. I am helped by teamwork.
10. Sometimes I prefer working in a team.
11. When I work in a team some students have clear ideas.
12. In a team some students are not active participants.
13. The students' ideas in a team are very different from each other's.
14. In a team, some members need to know how to organize the work.
15. The success of a team is based on the work of all.
16. The team leader is a contributor to the success of the team.
17. Teamwork is useful for me.
18. I prefer collaborative work.
19. When I work in a team I see divergences.
20. When I work in a team I see solutions.

[a]From a study comparing a group of medical and dental students who were exposed to and used mechanistic concept maps (MCMs) as the primary learning tool to explain the concepts of a required first-year course (Homeostasis I) with groups of students in the same course who were not exposed to MCMs, Harvard Medical School, February-March 2016.