In the original studies at Cornell University in the 1970s, Joseph Novak, his colleagues, and graduate students labeled concept mapping as a tool for identifying what the learner already knew about a subject area (Novak, 1976). The “map” created by each student gave the educator, as well as each student, a visual representation of the student’s prior knowledge and concept understanding. It was believed that in order for successful learning to occur, a student must take active possession of what he or she already knows (as described in a concept map), find a relationship between each concept listed, and restructure the original concept with new terms and new understandings (Novak, 1990). Concept mapping became a way for students to visually recognize their knowledge and understanding of a topic.

According to Roth (1994), restructuring concepts while situated within a small group setting can greatly enhance the learning process. This peer collaboration allows students to influence and teach one another. In a group, students are able to demonstrate what they know about a subject while listening, observing, and learning from others resulting in the modification of their own understanding. Creating concept maps in groups therefore should unite teaching with learning; teaching by one student and learning by another. The end result of a concept map generated by a group of students is educationally directed social interaction by students, a product consisting of the combined knowledge of two or three students, and at least one (possibly two or three) student from each group who have had the opportunity to directly teach a fellow classmate.

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