

Abstract

Thinking Maps as Tools for Multiple Modes of Understanding

by

David Nelson Hyerle


Doctor of Education

University of California at Berkeley

Dr. James L. Jarrett, Chair

This study is an introduction to the theoretical foundations for and practical classroom uses of thinking maps as student-centered tools for constructing personal, interpersonal, and social understandings. Thinking maps are eight graphic organizers based on fundamental patterns of thinking. These graphic forms are presented in the context of the present thinking skills movement in schools, cognitive science research, and an alternative view of thinking and knowing called "connective." This background research-- along with an analysis of different types of graphic organizers presently being used in schools --supports the introduction of thinking maps as a language for facilitating students' thinking and content learning. As a language of interrelated graphic patterns, thinking maps are shown in this study to have a visual lexicon based on four distinct characteristics: theoretical breadth, graphic consistency, flexibility, and reflectiveness. These

characteristics are revealed by thinking maps applications created by students and teachers at both elementary and secondary school levels. Thinking maps are also introduced in this investigation as interactive tools for use in key areas of educational change at the turn of this century: for the development of students' thinking and metacognitive abilities, perspective-taking and multicultural education, organization for research and writing, and for interdisciplinary learning. In addition, an assessment rubric based on holistic scoring of thinking maps is presented as a framework for viewing the development of students' thinking and content learning over time.



Dr. James L. Jarrett, Chair