Foreword

I n *Visual Tools for Transforming Information Into Knowledge* (2nd edition), David Hyerle takes the concept of visual tools to new heights. He provides a strong theoretical base by starting with the mapping metaphor. Just as cartography increased the speed and efficiency with which new lands and new people could be identified and connected, so too do visual tools escalate the speed and efficiency with which an individual can identify new knowledge and connect it to what is already known. Hyerle reviews not only the theoretical underpinnings of the use of visual tools but also the research supporting it—some of that research my own. Specifically, in the book *Classroom Instruction That Works* (Marzano, Pickering, & Pollock, 2001), I reviewed a number of studies focusing on what I referred to as nonlinguistic representations. This term included instructional strategies such as graphic organizers, mind maps, and the like. The research I reviewed strongly supported the use of such strategies as powerful instructional tools. In my latest review of the research on general instructional strategies contained in the book *The Art and Science of Teaching* (Marzano, 2007), I found even stronger evidence for the efficacy of nonlinguistic representations.

In his work on visual tools, David Hyerle has expanded the frontiers of strategies involving nonlinguistic representations far beyond what I and others have attempted to do. He provides not only a comprehensive theoretical basis for the efficacy of visual tools but expands their application to new and exciting arenas. A short list of the applications of visual tools Hyerle details includes

- Brainstorming
- The use of visual tools for facilitating habits of mind
- The use of software to enhance nonlinguistic thinking
- Collaborative reflection
- Book reviews
- The creation of mindscapes
- Traditional graphic organizers
- Domain-specific graphic organizers
- Chunking content to aid memory
- Process maps
- Mapping lesson plans
- System maps
- Feedback loops

Hyerle also addresses five levels of implementing Thinking Maps and provides criteria for determining whether visual tools are being used effectively by

an individual teacher or by an entire school. In short, David's work is the most comprehensive and useful to date on the topic of visual tools and what I have referred to as nonlinguistic representations. This book will no doubt be considered a classic for years to come.

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REFERENCES

Marzano, R. J. (2007). *The art and science of teaching: A comprehensive framework for effective instruction.* Alexandria, VA: Association for Supervision and Curriculum Development.

Marzano, R. J., Pickering, D. J., & Pollock, J. E. (2001). *Classroom instruction that works: Research-based strategies for increasing student achievement.* Alexandria, VA: Association for Supervision and Curriculum Development.