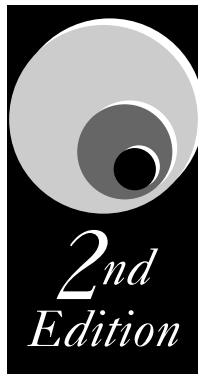
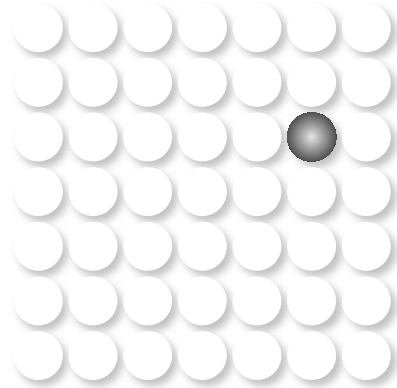


# Dimensions of Learning

## *Trainer's* **MANUAL**



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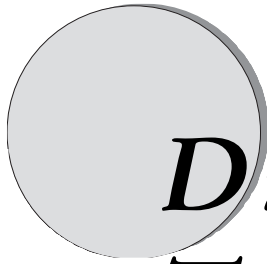
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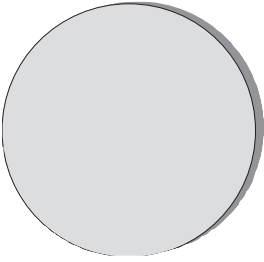
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## Introduction for Trainers

When the first edition of the *Dimensions of Learning Teacher's Manual* was published in 1991, the authors, led by Dr. Robert Marzano of the Mid-continent Regional Educational Laboratory (McREL), hoped that it would provide a tool that educators could use as they pursued restructuring and reform efforts in their schools and districts. Specifically, the Dimensions of Learning model was offered as a tool to help educators focus their efforts more on student learning than on the implementation of specific programs and strategies. Since 1991, Dimensions has been used by teachers and administrators in this way. The model has helped them to maintain this focus on learning both as they plan curriculum, instruction, and assessment and as they evaluate the impact of their efforts on student learning.

One of the reasons that the vision for Dimensions is being realized is that districts and schools have taken ownership of the model by developing the capacity to offer training and support within their own systems. We hope that the *Trainer's Manual* that accompanied the first edition contributed to this local approach to implementation. In order to continue to support this trend, we have revised and updated the *Trainer's Manual* so that it is now aligned with the second edition of the *Teacher's Manual*. The training scripts and overheads have been significantly modified, and new training activities and overheads have been added. We have maintained elements from the first edition that have been used successfully but also have enhanced the training with additions and modifications. This manual should continue to be a valuable resource for trainers and for other district and school leaders as they work with people who are interested in using the Dimensions of Learning model.

Before you read the remainder of this section, we recommend that you turn to the *Teacher's Manual* and read (or reread) the Introduction on pages 1-12. Reading this chapter should help to refresh your memory about some important points related to the assumptions from which the Dimensions of

Learning model was developed, the resources available to you as you study the model, and the ways in which the model has been used in districts, schools, and classrooms.

The second edition of the *Teacher's Manual* incorporates much of what was contained in the first edition, but those familiar with the first edition will notice significant revisions, deletions, and additions that have been made. If you are providing training for people who are familiar with the first edition, you might want to review these changes with them, which are described briefly below.

1. "Systems analysis" has been added to the list of reasoning processes in Dimension 4. This addition provides a way of helping students use their understanding of systems (e.g., ecosystems, systems of government, and number systems) to engage in tasks that require them to analyze the interactions among parts of a system or to predict what might happen when the parts of a system are altered in some way. Like the other reasoning processes in Dimension 4 (i.e., decision making, problem solving, invention, investigation, and experimental inquiry), systems analysis can be applied across content areas and at any developmental level.
2. There is an increased emphasis on the importance of clearly identifying declarative and procedural knowledge during unit planning. The chapter covering Dimension 2, "Acquire and Integrate Knowledge," provides direction for identifying and organizing declarative knowledge using common organizational patterns: descriptions (organizing very specific facts and organizing information important to identified vocabulary terms), time sequences, process/cause-effect relationships, episodes, generalizations/principles, and concepts. Although most of these patterns were identified in the first edition of the manual, in the second edition they are used to organize declarative knowledge in the unit planning process.

In the planning section for procedural knowledge, we recommend that attention be given to making sure that knowledge is identified clearly during planning and that if very general processes (or macroprocesses) are targeted, that the specific skills that are components of that process be articulated.

3. In addition to the increased emphasis on clearly identifying and organizing knowledge, the planning process for Dimension 2 includes examples of planning both with and without standards and benchmarks. These examples are offered because most states and

many districts are actively engaged in identifying standards and benchmarks, that is, the knowledge that all students should have an opportunity to learn. Thus, teachers should use these standards and benchmarks as they identify the declarative and procedural knowledge that students should be acquiring and integrating, extending and refining, and using meaningfully.

4. Those educators who have used Dimensions of Learning to plan curriculum have been fairly consistent in their feedback about the need for additional suggestions and recommendations for addressing Dimension 5, habits of mind. In the second edition, the chapter on this dimension has been reorganized and expanded. We offer very specific recommendations for
  - helping students understand the habits of mind,
  - helping students identify and develop strategies related to the habits of mind,
  - creating a culture in the classroom and school that encourages the development and use of the habits of mind, and
  - providing positive reinforcement to students who exhibit the habits of mind.

An additional section has been added that serves as a resource for teachers who are using the specific habits of mind included in the Dimensions of Learning model. For each of the 15 habits, there is a brief explanation, examples of situations in which the habit could be important, and sample strategies used by people who exemplify the habit.

5. Those who use the Dimensions of Learning model have consistently requested additional resources for the reasoning processes in Dimensions 3 and 4. To this end, the new manual includes, for each reasoning process, an expanded explanation, key points to keep in mind when using the process in the classroom, and sample tasks that could be used in K-12 classrooms.
6. At the end of the manual, a chapter entitled “Putting It All Together” (similar to the section in the first edition bearing this title) reviews planning questions for each dimension, explains models for different planning sequences, and reviews the entire sample unit. In this edition there also is an additional assessment section in the chapter, which provides explanations and recommendations related to assessment.

Instead of adding assessment forms at the end of each dimension, as was done in the first edition, this assessment section walks the reader through the decisions that need to be made about assessment during the planning process. Issues are discussed that are related to the use of conventional and performance assessments, and recommendations for the use of rubrics are provided. Also included is a sample page from a grade book, which has been filled in with grades for hypothetical students in a classroom implementing the sample unit that is developed throughout the manual. This assessment section should be more useful to the reader than the forms provided in the first edition. It synthesizes many of the issues related to assessment and provides a more comprehensive approach to assessment.

7. Although anyone familiar with the first edition of the *Teacher's Manual* will notice a number of changes in the format of the second edition, the most obvious is the addition of marginalia, information provided in the outside margins of each page. When appropriate, the text of the manual is supplemented with various types of information in the margins, including
  - references for books, articles, additional readings, or classroom materials relevant to the topic;
  - quotes from teachers who have been using Dimensions of Learning in their classrooms;
  - brief descriptions of school-wide or district-wide efforts to implement various aspects of the model;
  - relevant “quotable quotes” from well-known people; and
  - visual representations of important information explained in the text.

The second edition of the *Dimensions of Learning Teacher's Manual* attempts to preserve everything that made the first edition useful and to provide additional strategies, ideas, and examples that will help the experienced user as well as the novice. As always, we appreciate feedback from educators in the field and look forward to hearing from those who are using this second generation of Dimensions of Learning materials to enhance student learning.



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## How Dimensions of Learning Was Developed

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As stated in the *Teacher's Manual*, Dimensions of Learning is an extension of the comprehensive research-based framework on cognition and learning described in *Dimensions of Thinking: A Framework for Curriculum and Instruction* (Marzano et al., 1988), published by the Association for Supervision and Curriculum Development (ASCD). Following the publication of *Dimensions of Thinking*, an initial team of Dimensions of Learning project developers (Robert J. Marzano, Daisy E. Arredondo, Guy J. Blackburn, Robert Ewy, Debra J. Pickering, and Deena Tarleton) began identifying and developing teaching and learning strategies based on the conceptual framework presented in that publication. As that team consciously *used* the thinking skills, processes, and dispositions described in *Dimensions of Thinking* in their work with teachers and students, they began to see how a focus on the overall learning process could provide a powerful, integrative model.

An underlying premise of this early work was that *all learning is thinking*. For example, as students first read over a writing assignment or a list of vocabulary words, certain cognitive processes are called into play. The writing assignment may be similar to one that students completed last week or last year, and its similarity may prompt them to immediately begin recalling the procedures they used to generate ideas, find new information, or organize their ideas for that previous assignment. They may focus on planning, generating interest in the task, or even coming up with reasons to delay their work—all of which are types of thinking. This perspective of learning as thinking allowed the initial development team to operationally define the conceptual model first presented in *Dimensions of Thinking* so that it rigorously described the different types of thinking involved in the learning process and to then categorize the many research-based teaching strategies that foster these types of thinking.

Willow Creek Elementary School in Englewood, Colorado, under the leadership of Principal Deena Tarleton agreed to begin developmental testing of the Dimensions of Learning model and strategies. At the same time, ASCD and McREL cosponsored a Dimensions of Learning Research and Development Consortium composed of nearly 90 members representing various schools, districts, institutions of higher education, and state departments of education across the United States and Mexico. (See pages ix-x for a complete list of consortium members.) During 1989 and 1990, consortium members learned the Dimensions of Learning strategies, field-tested them in classrooms, reported results, and suggested revisions to the author team.

Charles Fisher, the project evaluator, then examined sample uses of the model and compiled formative evaluation data for the first year of the project. The descriptive data in his assessment report include general comments on the model as well as information about the effects of the strategies on teachers and students. Participants' comments were overwhelmingly positive, with reports of improved student performance, motivation, interest in class work, social behavior, and use of thinking processes. Teacher participants reported that they noticed improvement in their own thinking, a need to slow down and teach "more in-depth," a rebirth of excitement about teaching, improved interactions with students, and a shift in their role as teachers toward that of "facilitators of learning" and away from "transmitters of information."

During 1990 and 1991, consortium members continued to use the Dimensions of Learning strategies and met in subgroups to assist the author team with the final development of training materials by responding to proposed text, developing examples, writing vignettes, and suggesting various revisions. Dimensions of Learning is undoubtedly stronger and more "classroom friendly" because of the three years of intensive work with the many talented educators involved in the project.

Since the introduction of the *Dimensions of Learning Teacher's Manual*, the original authors plus the other members of the McREL training team—Diane Paynter, Janie Pollock, and Jo Sue Whisler—have worked with teachers and in classrooms using the Dimensions of Learning model and collecting feedback on ways to update and strengthen the materials. The result is this revision of the original manual. Again, its strength is the result of the contributions of the many dedicated and talented educators who have worked with the model.

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## **How To Use This Manual**

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This *Dimensions of Learning Trainer's Manual* contains very detailed resources for anyone who is conducting training in the Dimensions of Learning model. Following this introduction you will find these resources:

- seven, separate, detailed scripts, one containing a script for the Overview of the entire model plus six scripts that are aligned with the six chapters of the *Teacher's Manual* for the training;
- handouts to be used during the training (included in this section are blank planning guides for each dimension as well as a two-page Planning Reference Guide, which summarizes the key strategies and planning questions related to each dimension);

- appendices that supplement information presented in this introduction;
- bibliographic references; and
- overhead transparency masters to use with each of the seven scripts.

A brief explanation of certain aspects of the numbering of the overheads is in order. First, each of the chapters that cover Dimensions 1 through 5 has a section that deals with unit planning. The overheads for these sections are keyed with the letter *P* (e.g., the first planning overhead for Dimension 3 is 3.P1 (see page 158, where the trainer is cued to put up this overhead). Second, in Dimensions 3 and 4, the overheads are numbered to correspond to the order of the reasoning processes in each dimension; each overhead is then followed by a letter. For example, the first overhead introduced in the section on classifying (the second reasoning process covered in Dimension 3) is 3.2A. Similarly, the first overhead introduced in the section on investigation (the fifth reasoning process covered in Dimension 4) is 4.5A.

The section of the manual that contains the training scripts has a number of characteristics that also might need some explanation. Before reading about these characteristics, keep in mind the following recommendations:

- The training scripts are meant to provide a clear idea of what should take place in the training session. They are not meant to be read aloud word for word. We encourage you to assimilate the substance of the information and create personal scripts that maintain the integrity of the model.
- Because the best trainers are those who have used the model, we encourage you to include your own examples and anecdotes so that workshop participants will understand that you have used the parts of the model in the classroom.
- It should be noted that the scripts include suggestions for training for virtually all parts of the *Teacher's Manual*, more than can be covered in an initial training. You will need to determine which sections of the manual to cover explicitly and which to simply mention during any specific training session. This is especially true for Dimensions 3 and 4. Some subset of the 14 complex reasoning processes should be selected to cover in-depth. We elected to provide in-depth scripts for all of the material in order to allow you to make your own decisions about what to include.

With these suggestions in mind, turn to the scripts and leaf through a few pages to get a sense of the content and format. You will notice the following:

**Italicized Text.** Interspersed throughout the script are notes to the trainer that are set in italicized type and enclosed in brackets like these: < >. These notes include cues, directions, and suggestions for activities. For instance, they may cue the trainer to use an overhead or explain how to set up a specific small group activity. Other cues appear in the outside margins of the script. These are explained below under “Sidebars.”

**Sidebars.** The main body of the *Trainer's Manual* is supported by cues to the trainer in the margin, or sidebar. These cues are designed to alert the trainer to a variety of important elements of the training. One primary sidebar is an icon (e.g., <sup>Overhead</sup> 5.3) that alerts the trainer to the use of a particular overhead. Specific cues for various training activities are explained below. We suggest that you become very familiar with them as you prepare to train.

***Individual Task.*** This cue indicates a brief assignment, such as a reading or writing task, at a strategic point in the training. Individual tasks can be used to set up a paired or small group activity or a large group discussion.

***Think/Pair/Share.*** This cue signals a quick technique designed to help participants reflect on the information they are receiving by thinking about various issues and then talking through their thoughts. The trainer first asks participants to think about a specified issue and then to share their thoughts on the issue with a partner. He or she might then ask participants to share with the entire group.

***Small Group Activity.*** This cue indicates a small group assignment in which two or more participants work together to discuss or clarify an issue or to engage in a structured or unstructured task. Often the results are shared in a large group discussion.

***Jigsaw.*** This is a specific type of small group technique borrowed from cooperative learning. Each group member is assigned a section of material and asked to be responsible for teaching it to the small group. The strategy can be strengthened by having participants from the different small groups who are responsible for the same section of material meet together to talk over the material and then go back to their original small groups. This is an efficient and effective way for participants to learn substantial amounts of material that cannot be covered in detail by the trainer.

***Large Group Discussion.*** This cue indicates a discussion that is led by the trainer, which is commonly preceded by a question posed by the trainer. You will notice that sometimes these questions are followed by

notes to the trainer that either provide examples of answers that participants often give to this question or that include a “target answer.” This target answer cues the trainer to an important point that needs to be made during the discussion.

**Planning Activity.** This cue appears at the end of the section on each dimension and signals an activity in which participants practice planning a unit. This activity can be done individually or in small groups.

**Closure.** At the end of major training segments, the trainer is cued to select a method of closure for that segment. Closure gives participants an opportunity to reflect on what they have learned during the training activities. You will notice that in the script we suggest that the trainer select from three different styles of closure: table talk, pause and reflect, or learning logs. However, as with any portion of this training, we encourage the trainer to develop his or her own style. Each of the suggested styles of closure might be structured (by providing a specific question or assignment for participants) or unstructured (by giving participants the freedom to talk, think, or write about what they wish). Briefly, the three suggested styles are

**Table Talk.** Encourage participants to verbalize to a partner, or within a small group, specific things that they have learned during the training segment and what those things mean to them.

**Pause and Reflect.** Ask participants to sit quietly for a few minutes to reflect on their experiences in the training. They may want to skim over their notes, review pages of the *Teacher's Manual*, or simply sit and think.

**Learning Logs.** Ask participants to dedicate several pages of their notes to a learning log (or provide them with prepared forms). Provide time for them to write down their thoughts about the ideas in the training or about possible uses of the material.

Trainers and other decision makers who are planning training should remember an important principle of staff development: Training should be delivered and supported over an extended period of time and not be treated as a one-shot workshop. There are unlimited variations to offering this training. We have provided a brief description of one format: the four-day initial training followed by study team support. Study teams will be explained further in the next section, but we want to highlight that even a four-day training is not sufficient for full implementation of the ideas in this model.