

# Introduction

## A New Professional Development Tool

You're holding a new kind of professional development tool called a Strategic Teacher PLC Guide. Designed in partnership with more than 75 schools, Strategic Teacher PLC Guides make the important work of bringing high-impact, research-based instructional practices into every classroom easier than ever before. Each guide focuses on one research-based strategy and serves as a complete professional development resource for a team of teachers to learn, plan, and implement the strategy in their classrooms.

This Strategic Teacher PLC Guide focuses on Compare & Contrast, a critical thinking strategy unique in its capacity to build students' memories, eliminate confusion, and highlight crucial similarities and differences. As educational researchers Robert Marzano, Debra Pickering, and Jane Pollock (2001) report in *Classroom Instruction That Works*, comparative thinking strategies are the single most effective way to improve student learning, leading to an *average percentile gain of 45 points* in student achievement. Compare & Contrast takes the natural human capacity to make comparisons and maximizes its effectiveness by leading students through a four-phase learning process that involves

- Describing each item separately using criteria.
- Capturing key similarities and differences on a comparison organizer.
- Forming and discussing generalizations and conclusions.
- Synthesizing learning by completing a relevant task.

The Compare & Contrast strategy also integrates the habits of mind—a set of dispositions that increase students' capacity for skillful thinking (Costa & Kallick, 2008, 2009).

## Turning Knowledge into Practice

Here are three things we know about improving teaching and learning:

1. High-quality instruction leads invariably to higher levels of student achievement. Most educational researchers have concluded that the quality of classroom instruction is the single greatest determinant of student success.

2. High-quality instruction is replicable. There are specific, research-based strategies that are proven to raise student achievement—and that all teachers can master with time and support.

3. Schools that function as effective professional learning communities see “big, often immediate, dividends in student learning and professional morale in virtually any setting” (Schmoker, 2005, p. xii).

In other words, we know that we need to focus on improving instruction, we know which strategies will work, and we know that professional learning communities are key to any such efforts. But knowing these statements to be true doesn't mean that change is easy. In fact, we have worked with thousands of teachers and administrators who have built professional development around research-based strategies and professional learning communities, only to be disappointed by the results. Why? They were focused on the *right things*. They understood the crucial importance of collegial learning. What they needed was the *how*. *How do we make our professional learning communities work?*

The solution we developed with these schools is *learning clubs*. If you've been struggling to make the professional learning community concept a reality in your school, or if you're just beginning the process of establishing a professional learning community, learning clubs can help. A learning club is a collaborative support structure that makes the process of establishing and sustaining a professional learning community more manageable for teachers, administrators, and schools. A typical learning club consists of four to eight teachers who meet regularly to talk about and refine their instructional practices.

## Learning Clubs and Strategic Teacher PLC Guides: Perfect Together

Over the years, we have found that the members of the most successful learning clubs follow a relatively standard set of guidelines to maximize the power of collaborative learning. In response, we designed the Strategic Teacher PLC Guides around these guidelines. The members of successful learning clubs

- **Concentrate on instructional techniques proven to make a difference.** That's why each Strategic Teacher PLC Guide focuses on a specific strategy backed by both research and classroom practice.
- **Learn new strategies interdependently.** That's why each Strategic Teacher PLC Guide has been designed for use by a team of teachers. Discussion, group reflection, and group processing activities are all built into its structure.
- **Use new strategies in their classrooms.** That's why each Strategic Teacher PLC Guide puts such a high premium on classroom application. Teachers plan lessons, implement them in the classroom, and evaluate the results together.
- **Bring student work back to their learning clubs.** That's why each Strategic Teacher PLC Guide includes one full section dedicated to the analysis of student work.

- *Self-assess throughout the process.* That's why each Strategic Teacher PLC Guide includes strategy implementation milestones that teachers can use to determine where they are and where they need to go next.

## But Where Will We Find the Time?

As the research of Bruce Joyce and Beverly Showers (2002) makes clear, learning a new strategy is never as simple as attending a workshop or reading a chapter in a book. If you expect to implement a new strategy successfully in the classroom, then you'll need to commit at least 10–12 hours of embedded professional development time to master that strategy. Here's how some of the schools we work with address the challenge of time:

- Some schools convert their staff meetings, grade-level meetings, or department meetings into learning club sessions.
- Some schools use a portion of their committed professional development days for learning clubs.
- Some schools create intensive summer sessions for their learning clubs.
- Some schools have made a full commitment to the power of job-embedded learning and set aside regular time for learning clubs to meet on a weekly, biweekly, or monthly basis.

Because each school has unique scheduling demands and professional development resources, Strategic Teacher PLC Guides provide maximum flexibility. This guide, for example, is divided into four separate sections:

- Section 1 serves as an introductory tutorial on Compare & Contrast. Between Sections 1 and 2, teachers look for opportunities to incorporate comparative thinking into their instruction.
- Section 2 shows teachers how to plan and implement a Compare & Contrast lesson in their classrooms. Between Sections 2 and 3, teachers implement their lessons in the classroom and work with a critical friend to provide reciprocal feedback on their lessons.
- In Section 3, teachers reflect on how their lessons worked in the classroom. Between Sections 3 and 4, teachers design and implement a new lesson and collect samples of student work.
- Section 4 models a process for analyzing student work and shows teachers how to use this student work to improve instructional decision making.

We recommend that you preview these four sections and develop a schedule that works for all the members in your learning club. *As a final note, make sure you photocopy the lesson planning forms before filling them out (see pp. 42–44). You will need more blank forms as you plan future lessons.*

Good luck and good learning!

Figure 2.8 (continued)

**Step 3: Conclusion**

**Design discussion questions to help students draw conclusions.**

1. What is aerobic exercise? What is anaerobic exercise?
2. Why are both aerobic and anaerobic exercise needed?
3. How are both types of exercise beneficial for good conditioning?
4. Are there certain sports or activities in which one type of exercise is more important than the other?

**Step 4: Application**

**Create a task that will help students synthesize their learning.**

Students will review what they have learned about aerobic and anaerobic exercise. They will select a sport that interests them and use what they have learned to design a five-day conditioning program. Students need to incorporate both aerobic and anaerobic exercises into their programs and explain why they selected each exercise and how each is beneficial to conditioning for their chosen sport.

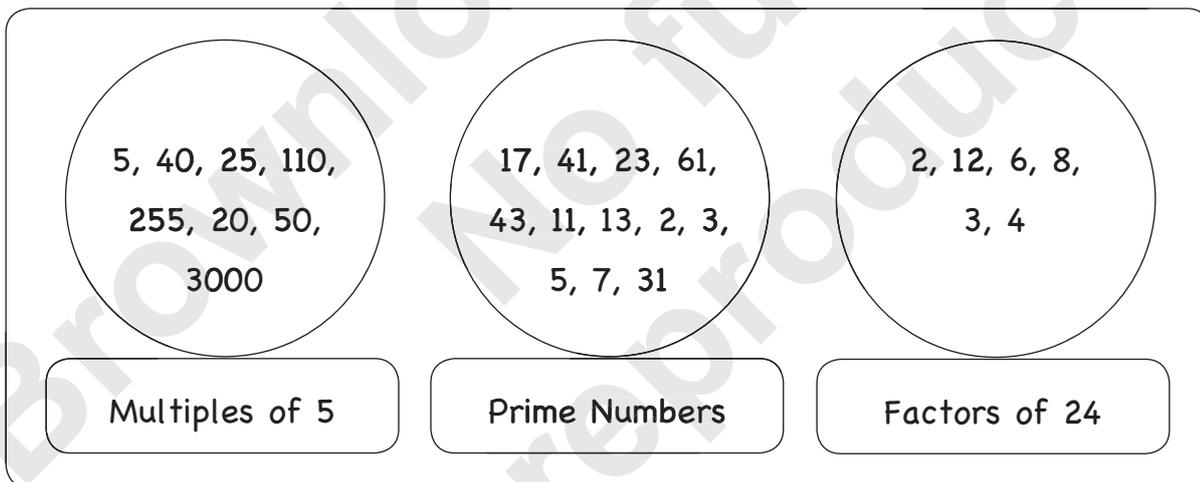
# Appendix A: The Power of Similarities and Differences

Compare & Contrast is one strategy in a family of four that Robert Marzano and his team refer to as “Identifying Similarities and Differences” (Marzano, 2007; Marzano et al., 2001). Their research has shown that strategies that engage students in comparative thinking consistently yield high levels of student achievement. Here, we provide a brief overview of the three additional comparative strategies. Each of these strategies is covered in depth in *The Strategic Teacher: Selecting the Right Research-Based Strategy for Every Lesson* (Silver, Strong, & Perini, 2007).

## Inductive Learning

Inductive Learning requires students to examine a set of examples or a bank of data and develop a classification system. Figure A.1 is an example from a 6th grade mathematics class.

Figure A.1 **Student’s Classification System for a Set of Numbers**



Encourage students to group items in ways that are meaningful to them. Make sure you emphasize the importance of giving each group a descriptive label. Collect and record students’ ideas on the board. Students can use their groups to make predictions about the learning to come: as they encounter evidence that confirms or refutes their predictions, they record it. Lessons incorporating Inductive Learning typically culminate with a task that asks students to apply their classification system in a meaningful way.