

**Indicator: All teachers demonstrate the content knowledge necessary to challenge and motivate students to higher levels of learning. (251)**

**Evidence Review:**

Professional development should parallel the school improvement plan and evidence of research-based practices in the classroom as determined by systematic classroom observations by the principal and by peers. When the school improvement plan calls for new expertise to enable the school to move in a new direction or to address a particular problem, professional development is a means for elevating the skill and knowledge of administrators, teachers, and staff. When classroom observations by the principal or other teachers (as in peer observation and collegial learning) indicate a general need for improvement across the faculty, well-planned professional development is a way to improve. When classroom observations by the principal or another teacher show an individual teacher's areas that need improvement, that teacher's personal development plan can include training or coaching to assist the teacher in the area of need.

The research-based teaching practices described in principles 7, 8, and 9 above (and listed as indicators in another module in this handbook), provide the elements of a classroom observation instrument. The principal or another teacher would meet with the observed teacher before the observation to review the indicators and again after the observation to discuss the observer's impressions. The teacher and the observer then create or update a professional development plan for the teacher, listing: (a) observed strengths and ways the teacher might share his/her expertise with other teachers, and (b) areas that need improvement and steps toward improvement. The observer assists the teacher in carrying out these next steps. Continuous improvement of each teacher's skills is achieved through a variety of means including whole-faculty workshops, consultations with Instructional Teams, the principal's work with individual teachers and with teams, and through collegial learning – teacher to teacher (including peer observations, study groups, coaching, and mentoring). While teacher evaluation is something apart from professional development, evaluation should include examination of the teacher's proficiency with the same indicators used to plan professional development for each individual teacher and for the faculty as whole.

**Source:** Sam Redding, *Handbook on Restructuring and Substantial School Improvement*.

**Example:**

***Professional Development Plan For Teachers***

Teacher's Name: \_\_\_\_\_

You will need a copy of the completed Classroom Observation Instrument.

Identified below are the three top areas of strengths and three areas that most indicate a need for improvement based on the Classroom Observation Instrument.

<b>Indicators</b>	<b>Strengths Ways to Share Expertise</b>	<b>Timeline to Completion</b>
1.		
2.		
3.		

<b>Indicators</b>	<b>Areas to be Improved Strategies To Be Used</b>	<b>Timeline to Completion</b>
1.		
2.		
3.		

**Teacher's Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Observer's Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Source:** Sam Redding, *The Mega System. Deciding. Learning. Connecting. A Handbook for Continuous Improvement Within a Community of the School.*

**Evidence Review:**

Based on later observational and control-group research, reviewers identified six phased functions of explicit teaching: (1) daily homework check, review, and, if necessary, re-teaching; (2) rapid presentation of new content and skills in small steps; (3) guided student practice with close monitoring by teachers; (4) corrective feedback and instructional reinforcement; (5) independent practice in seatwork and homework with high (more than 90%) success rate; and (6) weekly and monthly review (Brophy, 1999; Subotnik & Walberg, 2006).

Following the same evolution of research, reviewers identified the essential elements of "Mastery Learning." Originally conceived by Benjamin Bloom, Mastery Learning combines suitable amounts of time for individual students and behavioral elements of teaching (Walberg, 2006):

- "Cues" show students what is to be learned and explain how to learn it. Cues are more effective with increased clarity, salience, and meaningfulness of explanations and directions provided by teachers, instructional materials, or both. As the learners gain confidence, in ideal circumstances, the salience and numbers of cues can be reduced.
- "Engagement" is the extent to which learners actively and persistently participate until appropriate responses are firmly entrenched in their repertoires. Such participation can be

indexed by the extent to which the teacher engages students in overt activity – indicated by absence of irrelevant behavior, concentration on tasks, enthusiastic contributions to group discussion, and lengthy study.

- • “Corrective feedback” remedies errors in oral or written responses. In ideal circumstances, students waste little time on incorrect responses, and teachers rapidly detect and remedy difficulties by re-teaching or using alternate methods. When necessary, teachers provide additional time for practice.
- • “Reinforcement” is illustrated in the efforts elicited by athletics, games, and other cooperative and competitive activities. Immediate and direct reinforcement make some activities intrinsically rewarding. As emphasized by some theorists, classroom reinforcement may gain efficacy mainly by a rewarding sense of accomplishment or providing knowledge of results.

Formative tests are employed to allocate time and guide reinforcement and corrective feedback. Mastery usually takes additional time, a reported median of 16 percent but up to 97 percent more time than conventional teaching. On the other hand, its effects are large, and, in restructuring schools, some students are likely to require the extra time to attain AYP and eventual proficiency.

Developed by the late Ann Brown and others, “Reciprocal Teaching” is a third approach that can incorporate re-teaching when it appears necessary (Cawelti, 2004; Subotnik & Walberg, 2006). In the 1980s, cognitive psychologists sought teaching methods to encourage “meta-cognition” or “learning to learn.” In this approach, learners monitor and manage their evolving knowledge, skills, and understanding with self-management viewed as more important than simple acquisition. Teachers transferred some of the responsibility for explicit teaching functions of planning, allocating time, and review. It turned out that that such self-teaching and self-monitoring of progress fostered learner independence, particularly of more advanced content. How does reciprocal teaching work? It is not dissimilar to the old saying: “To learn something well, teach it,” which encourages learners to coherently organize material in preparation for teaching to make it clear and memorable to themselves and others. One practical way to accomplish this is to ask students to each master separate but inter-related parts of a challenging reading selection and organize it for presentation. They take turns, often in groups of two, in imparting the pertinent features of their part of the text. In reciprocal teaching, students learn planning, structuring, and self-management by assuming the planning and executive control ordinarily exercised by teachers.

Similarly, “comprehension teaching” encourages students to measure their progress toward explicit goals. It can be described as a three-stage process of (1) modeling, where the teacher demonstrates the desired behavior; (2) guided practice, where the students perform with help from the teachers; and (3) application, where the student works independently of the teacher. Learners are encouraged to increase their self-awareness of their own progress and reallocate time for their weak points when necessary. Comprehension teaching encourages students to measure their progress toward explicit goals.

**Source:** Herb Walberg, *Handbook on Restructuring and Substantial School Improvement*.

### **Evidence Review:**

The most widely replicated findings concerning the characteristics of teachers who elicit strong achievement score gains are:

1. **Teacher Expectation/Role Definition/Sense of Efficacy:** Teachers accept responsibility for teaching their students. They believe that students are capable of learning. They re-teach if necessary, and alter materials as needed.
2. **Student Opportunity to Learn:** Teachers allocate most of their available time to instruction, not non-academic activities, and learning activities are carefully aligned to standards.
3. **Classroom Management and Organization:** Teachers organize their learning environments and use group management approaches effectively to maximize time students spend engaged in lessons.
4. **Curriculum Pacing:** Teachers move through the curriculum rapidly but in small steps that minimize student frustration and allow continuous progress.
5. **Active Teaching (sometimes called Direct Instruction):** Teachers actively instruct, demonstrating skills, explaining concepts, conducting participatory activities, reviewing when necessary. They teach their students rather than expecting them to learn mostly from curriculum materials. They do not just stress facts or skills, they also emphasize concepts and understanding.
6. **Teaching to Mastery:** Following active instruction, teachers provide opportunities for students to practice and apply learning. They monitor each student's progress and provide feedback and remedial instruction as needed, making sure students achieve mastery.
7. **A Supportive Learning Environment:** In addition to their strong academic focus, these teachers maintain pleasant, friendly classrooms and are perceived as enthusiastic, supportive instructors.

(Brophy & Good, 1986; Good, 1996; Reynolds, 1992; Waxman & Walberg, 1991)

An analysis of quality of instruction (Walberg, 1984; Wang, Haertel, & Walberg, 1993) finds evidence of the strength of particular instructional elements, mastery learning techniques, direct instruction, and graded homework. Techniques employed during teacher-directed instruction have demonstrated impressive power (effect sizes) in studies of student learning. Cues, for example, are especially effective in activating prior knowledge and alerting students to important information (Walberg & Lai, 1999). Connecting to prior knowledge is not only helpful in organizing new learning, but increases students' interest in the topic (Alexander, Kulikowich, & Schulze, 1994). Advance organizers, first popularized by psychologist David Ausubel (1968), provide scaffolding for the incorporation of new material to be introduced within the next 20 minutes or so. Advance organizers take such forms as visual graphics, lists, and statements abstracting the material. Simply describing the new content (expository advance organizer) is the most effective type of advance organizer, but other forms (narrative – brief presentation in story form, skimming – quick preview of text, and illustrated – use of visuals) are also effective (Stone, 1983). Internal summaries and the rule-example-rule approach have demonstrated their power in enhancing learning (Rosenshine, 1968). The agile teacher who is able to articulate clear goals and expectations for the lesson and make wise decisions in the use of various instructional techniques is key to teacher-directed instruction (Good & Brophy, 2000).

Teacher-directed, small-group instruction is an effective follow-up to the whole-class presentation, enabling the teacher to focus instructional attention on the particular requirements of homogeneous groups of students. The groupings should be fluid, rearranged frequently in response to particular learning needs. Students should not be clustered in other ways – such as seating arrangements – that appear to solidify group membership and “label” members. Because groups are formed to address particular learning needs, they will vary from time to time in number

of members and in the time devoted to them (Good & Brophy, 2000). Small groups may also be employed for student-directed learning, with instructions provided by the teacher, and are especially effective for cooperative learning and peer-to-peer learning.

A meta-analysis of 28 factors that affect school learning (Wang, Haertel, & Walberg, 1993) found that the single most powerful factor is classroom management – the way the teacher organizes and manages the complex variables of curriculum, time, space, and interaction with students. Classroom management is evidenced in the teacher’s “withitness,” the learner’s accountability for learning, the clear procedures in the classroom, and the way the teacher mixes whole-class instruction, small-group instruction, and individual instruction.

Consistent reinforcement of classroom rules and procedures is key to classroom management (Emmer et al., 1984; Evertson et al., 1984). Rules and procedures are posted in the classroom, and students are reminded of them and learn to operate according to them. The effective teacher “teaches” classroom procedures in a positive way rather than relying solely on correction of violations. Frequently resorting to correction and punishment is a sign of inadequate classroom management methods, but consistent enforcement of rules and procedures is a necessity (Stage & Quiroz, 1997).

Teacher “withitness” is described by Brophy (1996) as the teacher being “aware of what is happening in all parts of the classroom at all times...by continuously scanning the classroom, even when working with small groups or individuals. Also [the teacher demonstrates]...this withitness by intervening promptly and accurately when inappropriate behavior threatens to become disruptive” (p. 11). The way a teacher plans, organizes, manages, and watches over the classroom determines the prevailing “culture.” Students adopt the ethos of the classroom culture, responding to what the teacher has created and to the way the teacher behaves.

**Source:** Sam Redding, *Handbook on Restructuring and Improvement*.

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