



PART ONE

Understanding the Standards

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chapter
ONE

In a modern tale, Thomas Edison returns to visit an American home where a teenager is submitting her physics homework on the Internet. “Ahhh,” he sighs, “How far we’ve come with electricity!”

Not long after, Wilbur and Orville Wright follow Edison into the family home, where the younger son is watching a space shuttle launch on TV. “Ahhh,” they sigh, “How far we’ve come with flight!”

The next day, John Dewey visits the boy’s classroom. “Ahhh,” he sighs, “Exactly as I remember it.”

—Jean Rutherford, University of Texas

Effective Teaching and Pedagogy

The dynamic of classroom teaching that is most vital to student learning is lost when classrooms function like cemeteries. The cemetery model of teaching enforces students' silence, solitary work, and permanent placement in an orderly arrangement of furniture, usually in rows and columns. This model has become emblematic of teaching. It appears whenever classrooms are portrayed in television programs and commercials. The model typically shows teachers standing in the middle of scrubbed and seated youngsters who look like the teacher and raise their hands, eager to participate. This view of classrooms lags behind current understandings of teaching and learning, and overlooks the rich diversity of students.

Teachers typically meet their students in numbers as large as their classroom will hold. Many of the students' home backgrounds and languages differ from those of the teacher. Classes include students who are poor, preliterate, and lacking in knowledge not only of the language of instruction but also of the expectations and procedures of school.

INCREASES IN U.S. MINORITY STUDENT ENROLLMENT

The percentage of public school students who are minorities increased from 22 percent in 1972 to 43 percent in 2004, with the largest growth among Hispanic students. In 2004, minority public school enrollment, at 57 percent, outpaced white student enrollment, at 43 percent, in the west of the United States (U.S. Department of Education, 2006).

Regardless of how the student population changes, teachers use the knowledge and skills they have been taught. They frequently use instructional methods that

focus more on securing students' immediate attention to content than on building teacher-student relationships that support communication and learning. They may implement a cemetery model in their classroom because they were taught that way themselves and believe it is responsible for their own academic success. Even when teachers see their students struggle with and detach themselves from learning, they may lack the skills needed to shift to another approach or they may find other explanations for students' failure.

Because teachers are typically highly qualified and proficient in their content knowledge, the skills they lack are usually related to the knowledge and application of pedagogy. When teachers understand and use pedagogy, their teaching has the flexibility to meet students' vast array of learning needs. This book discusses pedagogy and its role in effective classroom teaching. Pedagogy, as much as teaching, ensures that all students are assisted in learning academic content as effectively as they learn in their worlds outside of school. Pedagogy can guide teachers to organize their classrooms, design activities, and communicate with students to support learning, but it is also a system for strengthening teaching in order to produce learning outcomes for all students.

This book is about a system composed of five pedagogy standards. The system supports teaching that encourages students to learn through activity and dialogue. Each standard emphasizes a component of teaching, beginning with activity and then focusing on language and literacy development; contextualization; thinking; and most important, teacher and student dialogue on academic topics. Together the standards support classroom teaching by organizing lessons and designing activity that supports the use of a variety of effective approaches, particularly dialogue. The major benefit of the five pedagogy standards is that they encourage teachers to use the premier teaching strategy: instructional conversation.

PEDAGOGY DEFINED

Pedagogy is commonly used as a synonym for *teaching*, referring to all the educational functions of classrooms and schools. More specifically, *pedagogy* is generally described as the correct use of teaching strategies. Dictionary.com (2007) associates it with *method*, the meaning often given to another education term, *instruction*. For our purposes here, *pedagogy* is defined as the system of principles and methods that supports and facilitates effective teaching. It is also implied in the use of the traditional term *instruction* and in discussion of instructional approaches.

In the classroom, pedagogy is as visible as teaching. Research supports the importance of teachers having knowledge of pedagogy and using it in their teaching (Allen, 2003). A close look at the dynamics of classrooms reveals components of pedagogy that are distinct from teaching: teacher-student interaction, classroom organization, social arrangements of students, activity design, schedule, setting and context, and management. Together these components constitute pedagogy that has been little recognized for its potential to support effective teaching in any classroom. In the same way that content standards set goals for teaching, pedagogy standards provide a system of support for teachers in meeting their teaching goals. The five pedagogy standards offered in this book express the system as a set of principles to be applied in every classroom. These standards are based on scientific evidence, effective practice, and theory (discussed in this chapter) about what teachers need to know to teach productively.

Although it is highlighted less often than teaching, pedagogy always accompanies teaching. Ignoring the relationship between pedagogy and teaching is usually a disadvantage in teaching and learning. Pedagogy is present in and an influence on teaching and learning whether it is explicitly planned for or not. For example, every day many millions of energetic youngsters throughout the world sit still and quiet in classrooms, performing rote and abstract tasks for hours, reflecting pedagogy practice that most nations assume best suits their teaching goals. The inescapable influence of this approach ruled many of our own youths in cemetery-like classrooms that used transmission models of teaching. When pedagogy is ignored, it is still at work, exerting a powerful influence and producing unexpected outcomes. Note the conditions in our most blighted schools, where content focus is negligible and pedagogy is ignored: pedagogy is as forceful in creating chaos as it can be in providing structure.

Specifically, pedagogy supports teaching through the physical arrangements of the classroom, time scheduled, activity designed, relationships defined, expectations and values set, and participation structures imposed. Teachers use pedagogy to prepare and guide their own and their students' participation in teaching, learning, and activity performance. Because students' learning processes are better understood than they used to be, the value that participating in activity with others has in developing knowledge is clearer. This awareness encourages teachers to try alternative models of teaching. The ability to shift to such models relies on understanding pedagogy's role in transforming teaching. For example, the power that pedagogy has to transform teaching into teaching for success

through activity-based and interactive models is dramatic. The following list contrasts pedagogy that supports traditional or transmission teaching with pedagogy that supports activity-based and interactive approaches:

Transmission Pedagogy	Transformative Pedagogy
Individual tasks only	Joint productive tasks often
Whole group	Small groups often
Curriculum based	Activity based
Monotasking	Multitasking
Abstract	Contextualized
One size fits all	Differentiated activities

Transformative pedagogy is recognizable by how it supports teaching. It transforms the types of tasks and activities students perform; the social arrangements they use; and the pace, suitability, and familiarity of students' classroom experience. Transformative pedagogy also provides a system of support in the five pedagogy standards, which teachers use to guide students through increased levels of interaction, activity, and production toward their learning goals. Just as pedagogy can at times be broader than *how* to teach, teaching is not exclusively about *what* to teach, although in most models curriculum is closely associated with teaching. Because teaching is the source of all decisions made in the classroom and responsible for all of the classroom's effects, it is broader than *what*.

TEACHING DEFINED

There are numerous models of teaching and they are based in theories of learning, motivation, information processing, and cognitive and brain research. One model defines teaching as *assisted performance* (Tharp and Gallimore, 1988; Vygotsky, 1978). According to this view, learning occurs within the social interactions and settings of teaching and learning. The role of the teacher as well as of peers and parents in students' social groups is critical to learning. For example, peers who are proficient in language and the expectations of school influence students in classroom work through speech that models new ways of talking and thinking.

The role of activity is a component of the model. Teachers design tasks and activities to provide opportunities for learners to perform together, especially to

accomplish joint outcomes. Activity is problem and reality based in order to prod students to think in different and deeper ways about solutions or outcomes. The activities aim to connect students' prior understandings to new knowledge for application beyond the learning situation.

In the model, teaching occurs when a learner is assisted in his or her performance by a more competent other. This means that students who can perform competently with assistance from the teacher are indeed learning. Teachers or other assisters, such as competent peers, continue to influence learning along a continuum known as the *zone of proximal development* (ZPD) until the student is capable of full independent performance (Vygotsky, 1978). Every student's ZPD, or learning zone, is different and requires a different amount of assistance. Teachers come to understand students' differing needs through interacting and working with them, not only through assessments. Teachers focus on what students can do as well as on what they cannot do by helping them perform tasks and through testing. Focusing on the learning zone allows us to see where teaching actually occurs—in interaction with a more competent other at different points within the learning zone.

Teaching—or assisted performance, according to the preceding definition—is composed of three processes of assistance. First, the teacher must access the student's learning zone through joint activity in order to stimulate the learning process. Second, the teacher must assist the student within activity to identify what the student knows or needs to know, as a hook for the unfamiliar and unknown. The teacher identifies a hook when students reveal something they already know that will serve as a link to new information, or the teacher uses a hook that all students can understand to serve as a bridge to new information. Finally, the teacher and student must work together to expand the student's understanding for use in new situations. To provide this quality of assistance, teachers must use pedagogical support in the classroom that allows interaction with students in situations small enough to influence individual learning. They must also have content area expertise that they can use when needed to assist knowledge acquisition within the student's learning zone.

According to the theory, the timing of assistance is also important. Assistance is most effective when it precedes the development of understanding and begins to awaken learning. Assistance is not limited to teachers but may also come from competent others, such as peers, parents, and experts. The teacher, the most valued assister, has a relationship with the students, and has many means of influencing

students' learning. Entry into students' learning zones is a professional act requiring expertise that, like in the medical profession, according to its oath, must do no harm. The learning zone is where students' processes are activated and where teaching assistance can be most effective. The five pedagogy standards, when fully implemented, prepare students and teachers for productive work in students' learning zones. In other words, teachers have at their disposal the circumstances in which they can teach for understanding through dialogue, their most potent strategy.

THE ROLE OF PEDAGOGY IN EFFECTIVE TEACHING

Increasingly, U.S. public school students come from homes where language and culture may differ from the mainstream American experience, particularly the experience of the majority of those who teach them. This enormous change in the demographics of classrooms has outpaced every resource for preparing teachers. The five pedagogy standards facilitate teachers in assisting diverse and struggling students in instructional activity and in communication with their peers and their teacher.

Increasing interaction and activity in classrooms requires teachers to coordinate the components of their teaching. The five standards and their indicators provide guidance for teacher planning, relating, managing, designing, implementing, motivating, assisting, and assessing. The skills needed to implement five-standards teaching are not unique but they are powerful when they are polished and applied systematically. The following examples describe the role of pedagogy in teaching. Several classroom teaching models—transmission teaching, content-driven teaching, and performance-based teaching in a five-pedagogy-standards classroom—demonstrate pedagogy's evolving role in supporting teaching. The features of teaching and pedagogy in each example are identified and discussed.

Transmission Teaching

The transmission, or cemetery, model of teaching, which has been used continuously since before the twentieth century, has proponents and practitioners who keep it active today. The universal notion that teaching delivers knowledge intact to receptive minds is deeply rooted in tradition. Because over the centuries many talented students have succeeded within this model, its shortcomings for addressing all students' needs have been overlooked. Even when class sizes swelled during the twentieth century, the model was highly regarded because it was considered efficient for learning and low in per-pupil costs.

Do I Hear Talking?

It is fall. The twenty-eight third grade students in desks lined up in rows listen to and look at their teacher, Mrs. Daly, who is asking if there are questions about borrowing in subtraction. She has completed her problem demonstration on the board. With no questions asked, she assigns the students practice worksheets to complete at their desks. Not long after, some students look over at one another's papers. Mrs. Daly has returned to her desk in the front corner, where a student quietly waits. Students begin whispering across the aisles. Mrs. Daly looks up, rings a little bell, and asks, "Do I hear talking?" This brings startled quiet. She continues, "I asked for your questions during the lesson. If I hear more chatter, the entire class will miss recess. I was warned about your distractibility." The students return to their worksheets.

Mrs. Daly soon dismisses the student at her desk and sends him back to his seat, where he is admonished in front of the class to try harder even though he "is not the only one here who needs to listen better." Before accepting the assignment to this class, Mrs. Daly had heard it was a handful, but she knows how to handle that. She announces that she must go to the office for a few minutes. As soon as she leaves the room, several students begin to frolic, bumping desks out of alignment. Two students skip out of the room. The levity stops abruptly as the students from the hallway announce Mrs. Daly's imminent return. Silence is resumed, but furniture disarray gives away the students' antics. Mrs. Daly demands order and the furniture is noisily but quickly replaced. She circulates to check recent entries on students' worksheets. She observes little evidence of progress. Gloom sets in as Mrs. Daly barks that there will be no recess today because they already took it while she was out of the room. She collects the worksheets and marches to the board to demonstrate another borrowing problem. No one asks any questions. She assigns another practice worksheet to be completed within ten minutes. She sets her timer.

Mrs. Daly's students receive information in large-group and teacher-dominated discussion. The classroom is organized to support the orderly transfer of knowledge directly to students, which requires their quiet attention, accessibility, and

undiluted effort. The large group of silent, passive students works quietly and separately on identical tasks at their own desks set in a cemetery pattern of rows and columns. The teacher controls the topic, task, talk, and turns of all the students. The teacher monitors students, judges them, and assigns more tasks until a preselected amount of knowledge is transmitted. After a limited number of sessions are devoted to teaching a topic, the students are assessed and graded. Those who require more explanation or repetition and are reticent to ask questions in front of their peers fail, are deemed “slow,” or are told they just “didn’t listen.”

The teaching and pedagogy features of Mrs. Daly’s classroom teaching model are as follows:

Teaching	Pedagogy
Curriculum driven	Teacher-controlled interaction and activity
Individual level of learning	Isolated tasks
Anecdotally driven instructional decisions	Whole-group organization
Varied learning outcomes	Individual- and curriculum-based tasks One size fits all Monotasking: single-session opportunity to learn

In Mrs. Daly’s classroom, students’ energy seeped into any crack it could find. Students gave one another answers on the worksheets and performed antics when she left the room. The openings to participate that Mrs. Daly provided were unused by the students. One brave student was desperate for help, but his approach to the teacher’s desk resulted in criticism. The student energy that is suppressed in this model is lost as a resource for learning. Even though the transmission model works for some students, its capacity to meet all students’ needs is unrealized.

Content-Driven Teaching

In international comparisons of classroom teaching and standardized test results in core subjects such as science and mathematics across industrialized nations, U.S. students have demonstrated mixed results. One of three international assessments that measure aspects of mathematical skills, the Trends in International

Mathematics and Science Study (TIMSS) assesses fourth and eighth grade students' mathematics and science knowledge and skills. It was administered in grades four and eight in 1995 and 2003, and in grade eight in 1999. Across that period, U.S. fourth graders' assessment results were stable. They showed no measurable change, which means the students fell behind the scores of improving students in several other countries. Partly as a result of these findings, requirements for content expertise in core subjects increased for U.S. teachers, and teaching and pedagogy skills were not addressed, although teacher-preparation "methods" courses that offered training in such skills were no longer considered necessary. Such policy mandated that all instruction in content be performed by content-expert teachers. This mandate produced the content-committed teaching model.

"What Is a Vector Anyway?"

It is spring. In an eighth grade classroom, the teacher, Mr. Kanter, can be heard in the hallway delivering a science lesson on vectors. Mr. Kanter pauses to say, "If you aren't paying attention to this information, you will not know it for the test." The threat reduces the noise level slightly, although several students continue to whisper together. The rest of the students are sitting in their seats, lackadaisically looking up at the teacher. They write and draw on materials at their desks, and noisily crumple papers to throw at the wastebasket. One student gets up to use the pencil sharpener. Another says he's leaving to go to the bathroom. Mr. Kanter slumps against the chalkboard at the front of the room. He picks up a marker, takes a deep breath, and continues:

"Let's talk about this first for a minute. Here's what a vector is. Listen. The first thing is, what is a vector anyway? It's a force in a direction, a specific direction. This is how you represent a vector when you're drawing it. [Draws lines on board.] If you're going to do this with the mathematics, you draw it with a dot, a line, and an arrow. That means there's this much force in this direction: 9.8 meters per second squared. This is the number for acceleration for gravity. If something is falling, gravity is pulling it 9.8 meters per second squared towards the center of the earth. That's the rate at sea level. If you go closer to the center of the earth, it's going to make a difference. If you

go farther away, it's going to make a difference. The mass of the object you're talking about is how you adjust the gravitational pull. Gravity is pulling this block in this straight down at that rate [holding a block]. By changing those angles around, what we do is shift the direction of the vector, so the resultant vector comes back toward your finger instead of straight down. When you look at it, it doesn't look right. It looks like it should fall."

Mr. Kanter hands out worksheets on vectors. He tells the students that every student must complete the worksheet in the next twenty minutes or receive a zero. He returns to his desk in the back of the room. The students begin to read and write on the worksheets. They whisper and try to see others' papers, or they quietly bow their heads over their worksheets. When the bell rings they jump out of their desks to hand in their papers and race from the room.

Mr. Kanter's content-driven teaching is barely distinguishable from transmission teaching, except that he has content knowledge and the requisite degree. Content-driven teaching offers students new knowledge, usually textbook supported and logically presented. Mr. Kanter did not indicate that he based his content on data or individual students' needs. What makes sense to the teacher is assumed to compel the learner to understand, but students may not be able to assemble and connect on their own what they know, or follow the teacher's logic to new understanding. Mr. Kanter's teaching displays the following features of teaching and pedagogy:

Teaching	Pedagogy
Individual- and psychological-level model	Isolated tasks
Curriculum based	Whole-group instruction
Learning outcomes vary	Teacher controls talk and action
	Tasks are individual and curriculum based
	Abstract
	One size fits all
	Monotasking: single-session opportunity to learn

Without pedagogy that prepares students for new material through a variety of interactive and practical experiences with peers and teacher, few students can fully grasp new and abstract notions. Learning outcomes vary extremely and include failure. Without pedagogy that identifies and activates students in their learning zones, teachers cast about haphazardly for teaching moments and accept blank stares and silence as indicators of new knowledge gains.

Default Pedagogy

To understand pedagogy and its role in supporting teaching it is useful to examine its developmental stages as well as its full implementation. Teachers' instincts to use new approaches are praiseworthy and very brave when they respond to real student needs. Some teachers want to respond immediately by changing their approach in a single session rather than gradually introducing new activities and arrangements. Pedagogy is best understood and implemented as a system rather than as an alternative to employ occasionally. Because it is not uncommon for teachers to try new methods occasionally, even spontaneously, the following example is informative.

Seventh Graders Request Interactive Learning

It is October. In an inner-city seventh grade classroom, students argued about who was next to read aloud from the textbook. The new teacher, Ms. Tix, intervened and selected a student, who proceeded to read in a halting and unsure manner. The students fidgeted. They looked around and not at the text. Then one girl blurted out, "Can we have more discussions? That's what I want. I'm tired of listening to others read." Another said, "Can I have other work to do on my own?" Ms. Tix valued the rapport she had developed with her students and wanted to nurture it. By responding to the student's request for discussions, she hoped to invigorate the lesson and demonstrate her willingness to work with the students. She had already planned to follow up the reading with a debate assignment. This way she would just have them do it a day sooner.

She asked the students to break into groups of five to prepare debates on the topic of their reading. The students eagerly moved around the room, talking, joining, or being rejected by a group and dragging chairs noisily. After they had finally formed several groups,

the teacher reminded the students to talk about their debate topic. They initially complied, but their talk gradually veered off, group by group, into nondebate topics, with increasingly louder exchanges that distracted and attracted others. After several other reminders did not return the students to the task, the teacher ordered everyone to return to their own desks.

The bell rang before Ms. Tix could review the experience with the class. The students ran out of the classroom into the hallway to continue the conversations they had begun in their small groups.

In this example, Ms. Tix seized an opportunity offered by her students to reorganize activity spontaneously. She imagined there was an advantage in doing so—that the lesson would be reenergized and expand to include discussion goals. As every teacher eventually learns, even a small change in classroom procedures has an enormous effect on students and on the learning environment of the classroom. As a result, impromptu or impulsive attempts to implement pedagogy are typically avoided.

Ms. Tix was intent on succeeding with her students, although she did not recognize that the model she used was teacher directed. When Ms. Tix changed the social organization of the classroom, she shifted it not only from teacher directed to student centered, but also from an individual-psychological level of teaching to a social-interactive level. At the social-interactive level, student interaction and activity increase enormously. Because Ms. Tix permitted an impromptu shift into a new model of teaching, she did not prepare her students for their roles and responsibilities, nor did she anticipate the social arrangements that were required to form the small groups. As a result, neither teacher nor students knew how to negotiate the social forces in a classroom that was no longer teacher directed.

When changes in teaching are attempted, even pedagogy intended to improve the learning situation can have the opposite effect. Like successful pedagogy, failed pedagogy is powerful, often loud, and always overwhelming for teachers. The dismaying effects of failed pedagogy drive most teachers to default abruptly to their previous model of teaching. Many never again stray from the stale comfort of traditional teacher-driven models.

Ms. Tix was completely surprised to discover that she was unable to guide the students to resume substantive discussion in their small groups. After the shift away from the teacher-directed, whole-group setting, she was unable to guide any

part of the activity. In fact, she lost control of her class. Even the furniture in the room, which was also unsuited to support a multitasking classroom, contributed to the breakdown. Teaching at the social-interactive level succeeds in multitasking classrooms where teachers implement the five pedagogy standards as a system that guides learning through activity and interaction.

The differences between the teacher-directed model and the student-assisted model of learning are as follows:

	Teacher-Directed Performance	Student-Assisted Performance
<i>Teaching</i>	Individual-psychological	Interactive-social-community
	Curriculum based	Language and activity based
	Outcomes vary	Outcomes produced
<i>Pedagogy</i>	Lecture	Conversation
	Whole group	Small group
	Monotasking (single session)	Multitasking (multiple simultaneous sessions)

Dialogue Teaching

It is advantageous for teachers to hold conversations on academic topics with students in small groups. Most students engage in verbal exchanges several times in such a setting—far more than would be possible in a large group. In addition, students who would not participate in a large group may do so in a small-group setting. The teacher has the opportunity to probe students’ rationales and to examine details and conceptual content of the material in relation to a lesson goal. The following example is a teacher-led discussion about planets with a small group of third grade students.

Third Grade Planet Dialogue

- Ms. Macon:* Planets, we know we have planets. What kind of planets do we have? We have two groups. We’re writing about them in our essays.
- James:* Big planets, little planets.
- Ms. Macon:* No.

Avery: Inner planets and outer planets.
Ms. Macon: What are the inner planets?
Barbara: They're closest to the sun.
Ms. Macon: Let's try to put them in order.
Barbara: Mercury.
Don: Venus.
Avery: Earth.
James: Mars.
Ms. Macon: Now we're going to go to the outer planets.
James: Jupiter.
Barbara: Saturn.
Don: Uranus.
Avery: Neptune.
James: Pluto.
Ms. Macon: OK, what else is in the solar system that you know?
James: Meteorites.
Ms. Macon: Good, meteors.
Barbara: And comets.
Ms. Macon: What else is in the solar system?
Avery: The sun.
Don: Without it we would be dead.
Barbara: What would we do without the sun?
Ms. Macon: What would we do without the sun?
Avery: We'd be freezing.
Don: We'd be a block of ice.
Ms. Macon: We'd be a block of ice. And if we didn't have the sun, we wouldn't have the gravity to keep us in our—?
Barbara: Orbit.
Avery: It would always be dark and we couldn't see anything and the sun couldn't control any of us.
Ms. Macon: Right. Now there's one thing you haven't thought about that affects us quite a bit, and other planets.
Don: Inner cores.
Ms. Macon: No.
Barbara: Moons.
Ms. Macon: Moons. Now, do all planets have moons?

Avery

[looking in

text book]: Venus has no moons; Earth has a moon; Mars has moons; Jupiter, Saturn, Uranus, Neptune, and Pluto have moons.

Ms. Macon, unlike Ms. Tix, has developed the classroom organization skills needed to hold a small-group dialogue. The rest of the students were engaged in other activities while she dialogued with this small group. Because she had a manageable format, she involved all of the students in the conversation. She had the students review the facts of the planets' inner and outer placement. The students responded to their teacher's closed questions about the order of the planets. Ms. Macon's "No" response to a student's answer to the first question missed a language development opportunity. Later, in an instance of responsiveness, when she repeated a student's question, "What would we do without the sun?" what appeared to be an open-ended question meant to elicit students' knowledge of the topic rapidly became a search for a particular answer. When the answer did not come within two students' comments, Ms. Macon provided an oral cloze to prompt the answer she wanted. She barely responded to the next student's comment about the sun, then informed the students that they had missed something. To the first student to suggest a thought she replied no, meaning that he had not identified the answer she wanted. It is not clear whether Ms. Macon purposefully inserted the moon into the conversation or used it spontaneously. The instructional conversation's last statement was directly from the students' textbook, so its content was accurate.

Although Ms. Macon's goals for the dialogue were highly content focused, the social-interactive level of the dialogue shifted her teaching across the continuum into a transformative model. Her teaching was inclusive, but she used few opportunities in the dialogue to raise the level of the conversation by exploring students' thinking and understanding. This suggests that she was inexperienced in dialoging with students and was still developing her skills.

The following list summarizes the features of teaching and pedagogy that are present in the dialogue lesson:

<i>Teaching</i>	<i>Teacher-Directed Performance</i>	<i>Student-Assisted Performance</i>
	Individual-psychological	Interactive-social-community
	Ability- and IQ-based expectations	Standards-based expectations

(Continued)

	Curriculum based	Language and activity based
	Outcomes vary	Outcomes produced
<i>Pedagogy</i>	<i>Transmission Model</i>	<i>Student-Assisted Model</i>
	Lecture	Conversation
	Whole group	Small group
	Monotasking (single session)	Multitasking (multiple sessions)

With the addition of ability and IQ expectations that characterize teacher-directed performance, and of standards-based expectations that characterize student-assisted performance, the list of teaching and pedagogy features is completed. Finally, the addition of standards-based expectations is associated with content learning, which is observable in dialogue teaching. The teaching performance using dialogue with a small group of students, supported by pedagogy, provides an instance of teaching in the transformative model. The teacher achieved the learning outcomes in that all of the planets were correctly identified.

These models of teaching and roles of pedagogy make it clear that movement from one model and level of teaching to another requires planning and skills in pedagogy. Once the transition to a social-interactive level has been made, teachers find opportunities to assist students face-to-face in their learning zones. Teachers thus have occasion to interact on academic topics in ways that are not available in large-group and other teaching models.

In teacher preparation, pedagogy that complements and strengthens teaching is sometimes explained as coming from trial and error or, in other words, from on-the-job training. Although there is some evidence that teachers are more effective after five years of experience, it is misleading and simplistic to assume that teachers' skills in pedagogy or in teaching will spontaneously improve over time. Just as students must be taught concepts if they are expected to learn them, teachers must deliberately acquire skills that will enable them to succeed and that are based on what is now known about how students learn.

Performance-Based Teaching in the Five-Pedagogy-Standards Classroom

The five pedagogy standards introduced in this book provide a concise framework of guidance on *how* to teach, in contrast to state-mandated content standards and curricula that guide *what* is taught. These standards offer reliable methods for

facilitating teaching that accesses, assists, and accomplishes knowledge development in students' learning zones. Teachers can use the five-standards pedagogy to prepare students to receive teaching assistance. This pedagogy uses numerous activities and practice sessions to introduce students to various learning concepts and skills. Then, when teachers turn to assisting students in actual content learning, the students will be sufficiently experienced and familiar with the material to expand their content knowledge.

Assisted Teaching Model for Fifth Grade Students

It is spring. Mr. Yode discusses a story with his small group of fifth grade students at a table in the front of the room. He refers to a chart where he has listed students' comments about the story's setting and structure. When the students return to reading for more information, Mr. Yode looks up to monitor the rest of the class. The other twenty-nine students are talking and sharing work at activity settings placed around the room. Languages other than English can be heard along with laughter. The five students in the stock market area use the newspaper to track, record, and compute the progress of their portfolios. In the library area, students read alone or with peers. Mr. Yode glances over to the science work area, where six students are planting seeds. He compliments them on making progress on their planting, and makes a note to check on their cleanup when he rings the bell for activity change. He scans other work areas where students are writing in journals, working on vocabulary development, playing games, and using the computers for content research, writing, editing, and stock market updates. Mr. Yode compliments the students on their work focus. He reminds them to be ready to travel to their next scheduled activity setting in ten minutes. He turns back to his small group and resumes the story discussion and the chart of their progress.

In Mr. Yode's classroom, teaching assistance to support learning occurs in many forms, at different levels, and in multiple locations. At thirty-five students, Mr. Yode's class is large, but he finds that having that many students increases his opportunities to assist. His students also enjoy assisting one another. His management is embedded in the activities and routines of the classroom community he has developed. Mr. Yode gradually introduced each of the activities described by

involving his students in the planning and design. He explained and modeled or had students model how to approach and perform every activity. He found that his teaching was effective when he used the following pedagogy structures:

- *Multitasking*, which increases students' language and literacy practice with peers and teaching through dialogue
- *Routines*, which guide students through predictable sequences of activity
- *Activities*, which embed skill development within conceptual challenges
- *Work products*, which require knowledge application
- *Joint products*, which develop common understandings
- *Grouping*, which provides peer assistance for accomplishing academic tasks
- *Independent activities*, which ensure that students succeed across all content areas
- *Collaborative activities*, which involve the teacher in working with all students

Mr. Yode has developed his classroom to be a community of learners who view the classroom as their joint product. This community is an enjoyable experience, with students interacting; problem solving; and performing compelling hands-on activities, including those they design themselves or that their parents request and design. Throughout his years of experience, Mr. Yode has developed many joint products as well as other types of activities. Other activities have been created by his colleagues, some are commercial, and some are student generated. His criteria for activities have been that they must be compelling, language developing, and conceptual.

THE TRANSFORMATIVE TEACHING MODEL

The five pedagogy standards, when fully implemented, support effective teaching for academic outcomes. Mr. Yode's pedagogy supported his classroom's high activity and interaction levels and academic productivity. Using the five pedagogy standards, he developed the multitasking classroom that he prefers and that his students enjoy for the outcomes they can produce. In contrast, Ms. Tix was unable to finish her lesson because she lacked a pedagogy to support the social-interactive level of learning. Conversely, the third grade dialogue on planets reflected the teacher's considerable skill in organizing the students for an uninterrupted instructional conversation.

Mr. Yode assists students' performance through interaction with them, and students assist one another in the socially organized classroom. Mr. Yode's high

expectations are standards based and embedded in discussion and multiple tasks and activities. He meets with students in small groups to assist their understanding, to discuss their work products, and to provide corrective feedback. He teaches within a system, which means he uses predictable routines and organizational formats to increase his face-to-face contact with students and to provide compelling activities that meet students' specific needs.

THE PEDAGOGY STANDARDS AND CLASSROOM IMPLEMENTATION INDICATORS

The five pedagogy standards express a consensus about common learning needs across all student populations. Because the five pedagogy standards are deeply rooted in human psychological and social processes, they can be applied in any classroom or learning situation to strengthen teaching and its effects on students' achievement. When the standards are enacted systematically by different teachers in different schools and different communities, their implementation may appear quite different on the surface. The similarities among the different systems are located in the standards' foundation in capacities that are known to underlie learning. The five pedagogy standards and their indicators can guide teachers to increase the power of their teaching to facilitate students' learning by implementing a system based on them.

The pedagogy standards are implemented through their indicators, which are based on effective practice. The indicators are valuable as benchmarks for enacting each standard. It is not, however, the presence or absence of specific indicators that defines quality pedagogy, but how the indicators are implemented to achieve an outcome. Specific pedagogy strategies and activities vary from one content area and particular situation to another, but all indicator implementations share the goal of aligning teaching practices with the broad statements of the standards.

In the following chapters, the pedagogy standards are discussed in numerical order, which reflects the logic of their sequential application. Although this order—especially beginning with the foundational guidance of the first pedagogy standard—is strongly recommended, the power of the individual standards does not require any particular sequence of implementation. However, the effects on student achievement are produced by fully adopting and systematically implementing the pedagogy standards in the context of daily teaching. A complete list of the standards and their indicators, in the recommended order, is presented in Appendix 1A.