CHAPTER 1

The Work of School

Kerry, a first grader in southern California, once shared with us his definition of school: "It's a place where you come and they make you do stuff so you'll learn."

We like this definition of school. It is simple, yet profound. Most important, the definition comes from a student perspective, rather than the teacher's perspective. And yet, our first grader recognizes that the basic structure of first grade consists of three parts that we, as teachers, must also distinguish.

"A place where you come and they . . . "	Teachers
". . . make you . . . "	Students
". . . do stuff so you will learn."	Content

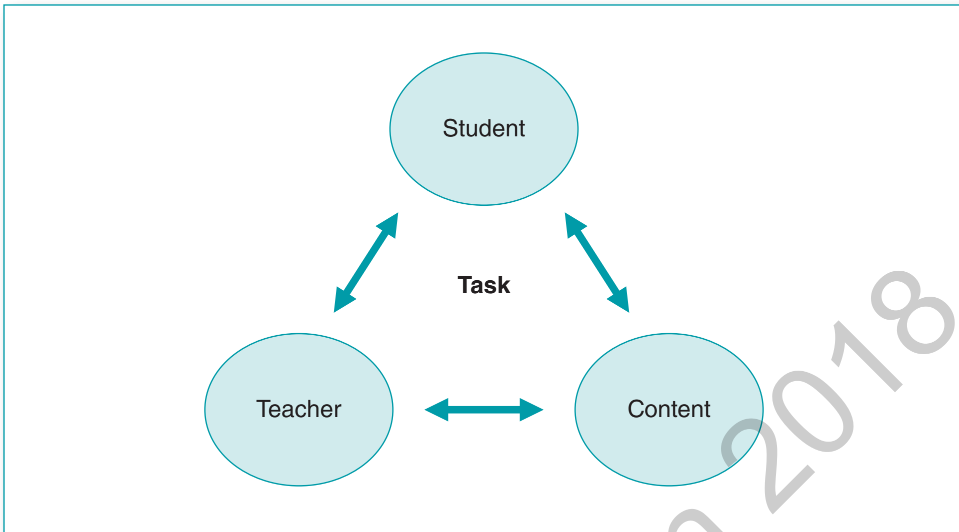
While Kerry was figuring out school in California, another group on the East Coast was discovering the same definition. In their seminal work, *Instructional Rounds in Education,* Richard Elmore and his Harvard colleagues state that "there are only three ways to improve student learning at scale."

1. Increase the level of knowledge and skill that the teacher brings to the instructional process.
2. Increase the level and complexity of the content that students are asked to learn.
3. Change the role of the student in the instructional process. (City, Elmore, Fiarman, & Teitel, 2009, p. 24)

Elmore and colleagues argue that to improve instruction we must work on this "Instructional Core" (Figure 1.1), recognizing that we cannot just focus on a single element of the core; all elements must be addressed. That is, one must simultaneously work to improve the teacher's skills and knowledge, the students' level of engagement and participation in learning, and the rigor of the content being taught.

In the center of the Instructional Core is the student task—or in Kerry's words, the stuff they make you *do*. The task is the meeting point of the Instructional Core components. One might call it the end product of the

FIGURE 1.1 Instructional Core



core. Or the entry into the core. For our purposes, it shall be considered the entry point and the design of learning.

Summarizing the work of Walter Doyle, *task* has been defined as "the actual work that students are asked to do in the process of instruction—not what teachers think they are asking students to do, or what the official curriculum says that students are asked to do, but what they are actually asked to do" (City et al., 2009, p. 30).

This book is about the stuff students actually do.

As the authors of the book you are reading, we cannot compel you to do the stuff in the introduction, but we thank you if you completed the activity. The readers who volunteered to complete the task might have chosen to do so because they like following procedures, sequences, rules, and written expectations of school. Perhaps they completed the activity because they want to experience all the book can offer. Other readers may have participated because they found the iconic events interesting or because some of the events were unknown or uncertain. Still other learners may have been drawn into the activity because the end product was open and arguable and allowed personal decisions and answers.

For the readers who chose to skim and skip the activity, we understand (and also thank you for reading the book). You may have desired a faster journey to the actual "content" of this book. You may have a very specific personal focus regarding what you want from this book and need to search for it efficiently.

In either case, we recognize that readers were in complete control of how and why they interacted with the first few pages of this book. The personal decisions you made in your participation thus far take us to the essence of the work we are about to explore: Learners are volunteers.

Students will volunteer time and energy (or not) to activities in a classroom for a variety of reasons. Levels of motivation, interest, fear, attraction, sense of duty, and engagement are only some of the factors that result in the wide range of volunteerism or participation in a task.

While the remainder of the book will look at ways to increase volunteerism in scholastic activities and tasks, we must first answer the questions, "What is a task?" and "What is the distinction between activities and tasks?".

A TASK IS A TASK

Let us consider a class in which the teacher wants the learners to be able to "analyze how the author's use of figurative language impacts meaning and tone" of a poem. To that end, each student is independently searching the given poem for examples of figurative language. They are asked to circle the figurative language in the text and annotate whether each occurrence is an example of metaphor, simile, or personification. The task is to find and identify the three types of figurative language or at least recognize the accompanying triggers or clues (e.g., the word *like* in a simile). This does not mean that students can now "analyze how the author's use of figurative language impacts meaning and tone." That is a different task with a particular cognitive demand, and the students did not do that work.

In order to provide a more precise language for the rest of this book, we want to drill down further and provide additional clarification about the difference between a task and an activity. For us, a task always includes a cognitive expectation or cognitive demand. An activity involves the other pieces that surround or support the cognitive task. In our poetry example, students obviously must be able to decode and comprehend the actual words they are reading, but this is not the purpose or goal of the planned task of finding and identifying figurative language. (We have watched students who were successful in identifying simile because the word *like* was present in the text, while not comprehending the words in the simile or the meaning of the comparison.)

> A task always includes a cognitive expectation or cognitive demand.

Sometimes the work is practice and repetition of a skill set with a goal of increased accuracy and speed. At other times, the task is one of inquiry, wherein students are asked to make sense of and find patterns in the content. Both of these are tasks, because they have a cognitive demand.

The relationship between activity and task is quite interesting. There is almost always interdependence between the two. If you can't read the problem (activity), you can't solve it using the Pythagorean theorem. An overwhelming activity—one that is "bigger" or more engaging than the cognition desired—can also diminish or even erase the intent of the task.

In a fourth-grade social studies class, the students have spent the first of three class sessions looking at background material before completing a Document Based Question (DBQ) protocol to determine "What caused the Dust Bowl?" Before they dig deeper into primary and secondary sources to research the question, the teacher presents the next task: "Now that we have some background information, I want you to get into groups of four and make three predictions about possible answers to the question. You will have ten minutes and then we will share with the class your ideas. Be prepared to explain your group's ideas." (Note: If you are familiar with the DBQ Project, this is the "pre-bucketing" task.)

Let's now watch a group of students interact with the task.

As our group comes together, Sharon jumps right in. "I think the dust bowl was caused when they killed the shortgrass prairie and all the dirt got blown into the air." Immediately, Anne counters with, "I think there were too many people farming." Livi-Kate adds, "The depression made people leave their farms and that caused the dust bowl." All the while, Brianna is listening to her table mates, verbally agreeing with their ideas and cheering them on. She fills in her bucket graphic organizer successfully, yet she has not completed the cognitive task. In this case, the collaborative structure of the activity allowed Brianna to opt out of the task.

As you are reading this scenario, you may be thinking that there is an easy fix to this situation. Each of the girls in the group could be required to first work independently in proposing one or two predictions and committing those ideas in writing on a sticky note before she works with the group. The activity would now guarantee that the task is required of each learner and will most likely produce more ideas and better conversations as the girls work to compare or combine their ideas. In this case, the "entrance ticket" into the collaborative activity may be more important to the task guarantee than the "exit ticket." The simple change the teacher makes to the original activity/task transforms the experience the learners have with the content, especially for Brianna.

> All tasks are activities,
> but not all activities are tasks.

TASK PREDICTS PERFORMANCE

Richard Elmore's phrase "the task predicts performance" has been quoted numerous times by many and with good reason. The examples we've used above are perfect illustrations of this point: The students in our poetry class are not likely able to analyze the relationship between figurative language and tone, simply because they did not accomplish that task. If Brianna participated in the dust bowl activity only as the recorder of ideas, we should not assume that Brianna can do this work independently.

At any given moment in a school, the activity within a classroom might be to listen, or watch, or participate in a discussion. Certainly, learning can occur by listening and watching, but we cannot ascertain learning until the student has the "forced opportunity" to mimic, repeat, react, analyze, or respond to that which she has heard or seen. In other words, until there is an articulated task completed by each individual student, there is no guarantee of thinking or learning.

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In 2005, John partnered with Dr. James R. Garver to formalize the work he had begun in 2001—defining engagement through the lens of the learner. Using the Look 2 Learning classroom walk-through protocol they developed and continued to refine, Antonetti and Garver visited 17,124 classrooms in the United States and Canada. The protocol is based on a short interview with students involved in learning activities to analyze the engagement value and impact of the core task. Antonetti and Garver quickly learned that to look for student engagement, they would have to almost ignore two of the components in the instructional core—teachers and content—and focus first on the students and their interaction with and within the task at hand.

Teachers who walked with Antonetti and Garver were often surprised (and sometimes horrified) at their purposeful disregard of the teacher. While the teacher is always part and parcel of the learning, Antonetti and Garver assure teachers that the truest picture of learning comes from focusing first on the students and the work they are doing in the classroom. Certainly, the role of the teacher and the content shifts and morphs with the design of the task. For example, if students are learning a mathematical procedure or how to conjugate regular -ir verbs in French class, they may be asked to repeat the procedure for the first time (one task) and then practice a procedure through four or five additional examples. In each case, the task demands a specific role for the teacher—the first begins with modeling and demonstrating and then shifts to monitoring and providing feedback. The content may become more complex as the students experience success, or the content may be backed down as the teacher decides to break the procedure into smaller chunks.

To accurately capture and isolate the myriad cognitive, social, and communal layers represented in a single 20-minute lesson is almost impossible. Antonetti and Garver focused on only the task and then asked teachers to personally and collaboratively reflect on the relationship between the task data and their students, the task data and teacher practice, and the task data and the content.

One of the most interesting data sets regarding the relationship between activity and task captures what percentage of class time students are involved in listening or watching (Figure 1.2). To be clear, the percentages in the chart represent the amount of time students were involved in activities of listening and watching that did not have an articulated task. For example, students might be asked to listen and watch as the teacher explained imperialism in Africa in the 1900s. They might also be asked to record notes as they listened. For some, the act of note-taking might involve a higher cognitive task of the student's own design, but for the majority of students, the activity produced "writing" that guaranteed only simple repetition of the words or thoughts presented in the lecture—regardless of student understanding.

FIGURE 1.2 Primary Student Activity by Grade Cluster

Grade Levels	*Activities Involving Listening/Watching*
All Classrooms (PreK–Grade 12)	49%
Primary (PreK–Grade 2)	37%
Intermediate (Grades 3–5)	43%
Middle School (Grades 6–8)	52%
High School (Grades 9–12)	63%

Look 2 Learning Sample size: 17,124 classroom visits

Source: Antonetti & Garver (2015, p. 116).

As you can see in this data, the frequency of listening/watching activities changes as we move through the grade levels. Yet, a significant amount of time is spent in all grades where the passive activity of receiving information may cover up or even replace a more powerful cognitive task. To reconnect to Elmore's instructional core, this data can now be shared with teachers, academic coaches, and school administrators, as they propose relationships between the task and the student, the task and the teacher, and the content targets and the task.

THE DESIGN COMPONENTS OF A TASK

After watching and comparing thousands of student activities, Antonetti and Garver defined three components of a learning task:

Cognitive Demand—the minimal thinking a task will require of the learners

Thinking Strategies—the required visible evidence of Personal Response

Engaging Qualities—the elements and conditions that elicit energy and enthusiasm

In the book, *17,000 Classroom Visits Can't Be Wrong: Strategies That Engage Students, Promote Active Learning, and Boost Achievement* (ASCD, 2015), Antonetti and Garver present these design components, building one upon the other, to ultimately produce a tool for teachers to use when analyzing, developing, or refining tasks to be more cognitively engaging. This book will begin where that volume ended.

TECHNOLOGY IN A WORKING MODEL, OR WHEN TERRI MET SALLY (AHEM, JOHN)

In 2009, John was contracted by Liz Storey, executive director of Green River Regional Educational Cooperative (GRREC) in Kentucky, to deliver a keynote address at a school leadership conference in Lexington, Kentucky. Liz introduced John to Terri as the go-to person for any technical support he might need for his presentation. She added that Terri was a master at the integration of technology for learning.

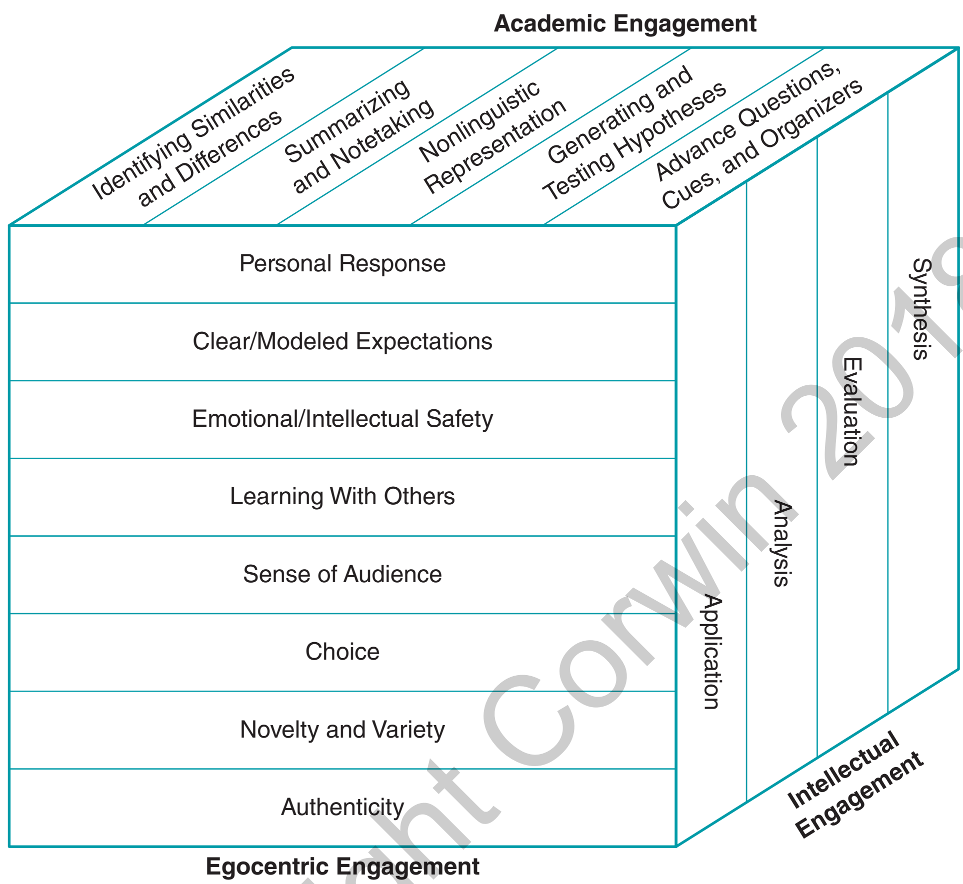
During his presentation, Terri was introduced to John's original Engagement Cube (Figure 1.3). John used the Engagement Cube to show the relationships among the three design components of the tasks he had witnessed bring out the most energy, reasoning, and creativity in learners across the continent. Terri immediately recognized the engaging qualities on the front of the cube as the reasons technology was so powerful for student learning. In an initial conversation between the two, John agreed with Terri, but mentioned that his research was not finding powerful integration of technology in the field.

If you ever played with a Rubik's Cube, you understand the meaning behind the Engagement Cube. As we struggle to solve the puzzle, many of us concentrate our cognitive energy on one facet at a time. We might "fix" the red side only to discover that the other five sides remained a mess. We would then put our energy into "orange," but "blue" would suffer. When we finally solved for yellow, we had again lost red. Sadly, we can find this exercise in our profession—the endless movement of staff development. If you have taught for longer than five years, you may be familiar with this issue. We may concentrate our energy on Initiative A for two years and then switch over to Focus B as required by new standards, a change in leadership, or simply following the next bandwagon.

What the cube really taught us was that there is no single entity that increases engagement. There is no silver bullet! Rather, cognitive engagement is the product of three different variables that come together to solve the puzzle of powerful learning.

As we work with teachers and schools in North America, we use the Engagement Cube as a visual model—a reminder to design learning with all three of the components activated.

FIGURE 1.3 The Cube



Source: Antonetti (2008).

The original version of the Engagement Cube was first developed by John and teachers in his home school district in Arkansas. In the early 1990s, the state switched its testing model to a more rigorous assessment in math and language arts that required students to work at cognitive levels of application or higher on as much as 40%–60% of the exams. In response to dismal results the first year, John and his faculty decided they needed some help in increasing the student thinking in their daily lessons. His leadership team developed the Engagement Cube as a model to consider during the planning process. Grade-level teams would meet in their professional learning communities (PLCs) to plan engaging, thoughtful lessons with the cube in front of them. As they considered any given standard or objective, the cube provided three questions: What will we have the students do so that they use the higher-level thinking (from the side)? What strategy (from the top) will be required in their writing or explanation? What engaging qualities (from the front) will make them want to do it?

The collaboratively designed experiment was implemented in the classrooms, and teachers would reflect on the lesson and analyze student work the following week. This cycle of collaboration brought about great improvement in the state test scores, and soon teachers and administrators from across Arkansas were visiting the school to see our planning cycle.

The three-dimensional model made sense to most visitors, but the "how-to" seemed to be lacking—because every teacher defined each of the "line items" in the cube differently.

John came to the realization that rather than fight the many definitions people brought to the items in the cube, he should capitalize on the progression of ideas that teachers articulated. For example, the engaging quality of Personal Response is present in the question, "What is your favorite color?" But the quality progresses in sophistication of thought when we ask the question, "What color do you think best represents your personality? Why?"

When he began to put each quality or strategy on a progression, or a continuum, the Engagement Cube took on the look of a rubric (Figure 1.4). Over the course of 12 years, Antonetti continued to refine the rubric until it took on the form published in *17,000 Classroom Visits Can't Be Wrong: Strategies That Engage Students, Promote Active Learning, and Boost Achievement* (Antonetti and Garver, 2015).

Following the release of *17,000 Classroom Visits*, John was often asked about technology. One workshop participant asked straight out, "How do you write a book about student learning in 2015 without including a chapter on technology?" John paused and then answered, " We did not include a chapter on technology. Nor did we include chapters on desks, pencils, air conditioning, or libraries. We assume schools have all of these things and they can certainly support the learning, but they are not design elements of powerful tasks."

In the subsequent years that John and Terri have worked together and visited an additional 3,500 classrooms, we both have witnessed—and one of us has come to recognize what the other already knew—that technology deserves its own distinction as a design component to bring about more profound learning. As John and Terri continued to work with classroom teachers and administrators, the rubric took on a different look, and a more practical tool emerged (Figure 1.5).

THE POWERFUL TASK RUBRIC FOR DESIGNING STUDENT WORK

If you have ever watched a television infomercial, you know how they sell the product. As quickly as possible, the audience is given a chance to see how to use the product, and to experience it visually. That's what we would like to do at this time: show the tool, and let you play with it. We can spend the rest of the book explaining the components and using the tool to analyze, design, and refine tasks of learning.

As you can see in the left column, the Task Rubric consists of the three components of cognition, strategy, and engaging qualities. Technology and questioning are additional design components that impact learning. Rather than being a tool that evaluates a task as good or bad, strong or weak, the Task Rubric presents a series of continua that recognize the fluidity of design elements. This will allow the user to objectively "find" the value of a task, rather than make evaluative judgments about a task. In other words, we do not want the user to see things on the left side of a continuum to be weak or to see things on the right as optimal. The evaluation of a task depends on its intended purpose.

For example, if our students need to practice multiplication facts for speed and accuracy, a task that falls at Level 1 (the column from the rubric) would be serving its intended purpose: recall, memorization (Figure 1.6).

FIGURE 1.6 Tasks at Level 1 of Cognitive Demand

	Power Component	*1*	*2*	*3*	*4*
Cognitive Demand	Bloom – Revised Taxonomy	Recall	Understand	Apply/Analyze	Evaluate/Create
	Examples	Name the steps	Follow the steps	Infer with text support	Argue, defend, or justify
	Antonetti/Garver – Patterns	Repeat patterns	Restate or reproduce patterns	Find patterns Find use for patterns	Compare patterns Add/combine/ ignore patterns
	Webb – DOK (Assessment)	Recall	Skill/Concept	Strategic thinking	Extended thinking
	Stein/Smith – Mathematics	Memorization	Procedures without connections	Procedures with connections	Making sense

Later in that same classroom, students are given a mathematical scenario that is new to them, and they struggle to find an entry point into a mathematical situation. Now the cognitive demand is at a Level 3 or 4 (Figure 1.7). (Note: We will not worry about accuracy at this time in our exploration of the tool. Rather, we want to develop some comfort in the idea of placing tasks against the continua.)

In addition to analyzing where a task falls on the continua, we can also look at the relationships among design elements. To illustrate, let's consider the role of the engaging quality of Personal Response found in the fourth row from the top in the rubric. In our first math task of memorizing

FIGURE 1.7 Tasks at Levels 3 and 4 of Cognitive Demand

	Power Component	*1*	*2*	*3*	*4*
Cognitive Demand	Bloom – Revised Taxonomy	Recall	Understand	Apply/Analyze	Evaluate/Create
	Examples	Name the steps	Follow the steps	Infer with text support	Argue, defend, or justify
	Antonetti/Garver – Patterns	Repeat patterns	Restate or reproduce patterns	Find patterns Find use for patterns	Compare patterns Add/combine/ ignore patterns
	Webb – DOK (Assessment)	Recall	Skill/Concept	Strategic thinking	Extended thinking
	Stein/Smith – Mathematics	Memorization	Procedures without connections	Procedures with connections	Making sense

FIGURE 1.8 Level 1 Personal Response

	Personal Response (Clear/Modeled Expectations)	Not necessary	Fill in the blank with "my" answer	Explain and support my ideas (open)	Explain and defend or justify my ideas

multiplication facts, Personal Response is neither necessary nor even desired. In other words, the answer to 4 × 4 should be 16, no matter who you are or what your background experiences have been. An answer of 17 is not Personal Response; it's just incorrect (Figure 1.8).

In our second task, the nature of the mathematics allows for students to find different ways into the math and to use different strategies and protocols. The task moves further along the continuum of engagement as students explain and support their ideas.

While we will eventually unpack each component and the associated continuua in the rubric, we feel it is important to start with the end in mind and jump into a full task analysis. That said, let us return to the Iconic Event Task and compare the learning experience to the Task Rubric.

Use the Powerful Task Rubric in Figure 1.9 or follow the QR code at the end of this chapter to retrieve a copy from the companion website to capture