Where
GREAT
Teaching
BEGINS

Planning for Student Thinking and Learning

Introduction

Have you ever watched a child play school? Maybe you remember playing school yourself—lining up your younger siblings or teddy bears on the floor while you stood in front of them, taking charge. You, or the child you've watched, probably demonstrated most of the visible aspects of what teaching involves: directing, praising, reprimanding, asking questions, explaining things, and generally engaging in the routines of classroom life. Teaching is understood to be a performance with a script—a script that leaves some room for improvisation but repeatedly pulls the actors back to traditional routines. What is both fascinating and alarming about this script is that a teacher can perform it quite proficiently without generating much learning in students' minds.

In a wonderful essay reflecting on a long career spent investigating student learning, Graham Nuthall (2005) noted that, whatever the formal curriculum might be, students learn about classrooms and about what teachers do from their own experience of being students. Those students who grow up to become teachers themselves tend to put this learning into practice. Nuthall described "ritualized routines" (p. 895) of classroom teaching that are carried on generation after generation and

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based primarily on principles of classroom management. Many of the teachers he observed had learned to be pleased with their lessons when they could see students demonstrating engagement and cooperating with the requirements of the assigned activities. Significantly, Nuthall noted that the primary focus for both students and teachers was task completion. Both groups measured the success of a lesson more by how well students had carried out classroom activities than by what students had learned from the activities.

My own experience as a student, a teacher, and a teacher-educator has shown me exactly what Nuthall described. I grew up seeing teaching as a matter of keeping order, delivering information, assigning tasks and projects, and giving tests. Like so many of my peers, I internalized these behaviors—this performance—as being what teaching is.

In an age of instructional accountability, in which attention to individual students' learning has become a priority, this ritualized-routine approach to teaching is no longer tenable. We need to understand that for any given assignment, some of our students may be going through the motions—not engaging in the cognitive activity necessary to expand their knowledge base—while others may be reviewing information they already know. We need to confront the fact that too many students are not thinking of their classwork as a route to learning but as tasks to be gotten out of the way, and too many teachers are out of touch with the cognitive development that we hope and assume is occurring in our students' minds. If what we think of as good teaching, even teaching that embodies "best practices," does not necessarily result in our students learning, what are teachers and teacher educators to do?

In his essay, Nuthall focused on the "cultural myths" that schoolchildren absorb and that teachers perpetuate about teaching practices, and perhaps it was because his attention was so focused on the events that could be observed and measured in classrooms that he did not directly address planning and designing instruction. Yet if we are to

challenge these myths and the practices that ensue from them, we must begin at the beginning of teaching, which is in the design of the whole instructional experience. And designing effective instruction requires educators to shift our attention from *teacher performance*—what the teacher does—to *student learning*—the intellectual work that students engage in and the outcome of that work.

In the more than 20 years that I have been an educator, including the 12 I have spent as an educator of teachers, I have seen that the most challenging feature of instructional design is creating objectives that focus on appropriate student learning instead of on classroom activities. I remember vividly that, as a beginner, I, too, lacked clarity about the purpose and practice of instructional design. My own early lesson planning efforts were superficial and tentative—not to mention of unpredictable effectiveness. I felt as though I were groping in a misty half-light, hoping that my next step would be the right one but not knowing how to tell whether it was or not. The only guidance available came from my students, who either learned what I intended for them to learn or did not—and often, the nature and depth of their learning was only partly visible to me. Furthermore, I couldn't tell whether anything that I had done was responsible for my students' learning, or if they had acquired skills and understanding from some other source.

Today, I see my own teacher-education students and many active teachers making those same uncertain gestures, guessing about the "right" way to frame objectives, assessments, and learning activities. Although education students take courses in instructional design, and in-service teachers attend workshops and conferences that address selected details of instructional design, without a firm grasp of the purpose of instructional design, the details of how to plan lessons often presented in these classes, workshops, and conferences will simply be piled on top of a faulty conceptual foundation, and the desired outcomes of instruction will not be reliably achieved.

My own preservice education students have shown me, through their trials, mistakes, questions, and confusions, that they need to begin with the foundations of instructional design, so that is where this book begins. I have also learned through experience that simply telling students things like "Objectives describe learning outcomes" or "Planning is necessary for coherent instruction," will produce nods of agreement but not necessarily the changes that will lead to more effective instructional design practices. Although my students' agreement may be real, basic shifts in perspective are difficult to bring about, and require time and practice. That is why the process of thinking about teaching and learning, for most people, must be taken in small steps with many examples to illustrate the principles involved.

This book is not intended to provide an exhaustive account of everything that is important about designing instruction. Fortunately, there are many valuable sources of information available about both effective instructional and assessment methods to use in the classroom. The missing piece for today's teachers is a detailed account of how to establish the clear, effective learning objectives that will support subsequent, sound decisions about instruction and assessment. For this reason, most of the emphasis in this book is on establishing objectives and all the thinking and conceptual understanding that underlies that work. Every teacher must know how to think about and carry out the detailed, step-by-step process of identifying outcomes for the whole teaching-and-learning enterprise.

Instructional design may seem deceptively easy to beginners, who, after all, have spent being a student and enter the field fairly confident that they know what teachers do. How hard can it be to figure out how to teach class tomorrow? Of course, once novice instructional designers grasp what the work really entails, the process can appear newly labyrinthine and mysterious—full of false starts and opportunities for error. It's natural to keep reverting to the teacher's classroom performance

instead of attending to student learning outcomes because—and my students have made this clear over and over again—our experience has taught us what teachers do in a classroom, but it has given us very little information about what students should learn and how they should learn it. As students, we knew which of our peers answered questions correctly, but we did not otherwise pay much attention to what anyone was (or was not) learning. As students, many of us did not even pay much attention to our own learning, because the routines of school encouraged us to focus on getting assignments done in a way that pleased the teacher. For that we were rewarded whether we learned anything meaningful or not.

Beginning instructional designers legitimately do not know what their instructional objectives are, much less how to state them clearly and "correctly." When they are far enough along in the process of shifting their focus to student learning to grasp how much they really don't know, they are like youngsters learning to ride a bicycle. Wobbling across the empty parking lot with a death-grip on the handlebars, they are aware that however fiercely they hang on, the whole project could still crash. These fledging planners wonder how it's possible to do what their expert colleagues do—create lesson after lesson, day after day, knowing what to say and do so that students learn what they should learn. But once the skill of effective instructional design is developed and practiced sufficiently, once balance is attained and forward momentum is brought under control, the work begins to come naturally and seem essential. The question shifts from "How can I possible do this well?" to "What was so hard about that?" The purpose of this book is to help every reader "hop aboard" the practice of effective instructional design and move forward with increasing confidence and success.

Instructional Design: Who and What Is It For?

Visualize a teacher at work. What do you see?

Most of us imagine a person standing in front of a group of students, talking to them, giving them information, demonstrating something, asking questions, or monitoring group work or seatwork. Those of us who are teachers might also picture ourselves at our desk or at our own kitchen table, grading a stack of papers.

It is natural to think about teaching in terms of performance in front of the class. As children, we absorbed an understanding of what teachers do from what we experienced as students in the classroom. We were aware of teachers' delivery of information, their interactions with us and our fellow students, and the activities or assignments they required us to do. We were certainly aware of teachers' role as evaluators. What we were generally not aware of, though, was the work our teachers did to plan *what we would learn* and *how we would learn it*.

Here's an alternative picture of a teacher at work: a woman is sitting at a table with a few colleagues, pen in hand, laptop open, surrounded by textbooks, journals, magazines, and three-ring binders filled with teaching

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materials, including copies of state academic standards and the district's curriculum. This teacher and her colleagues are talking about a unit on the local community that they are in the process of planning. Together, they are exploring ways to bring social studies, English, science, math, and art into this unit—working to design instruction that will lead their 7th graders to achieve the grade-level curriculum learning goals. They are thinking less about their own performances than about what will be going on inside their students' minds. They are asking, "How can we translate the requirements of the state's academic standards into specific examples that will make sense to our students? What are the students ready to learn? What will engage them? What will they remember in the weeks, months, and years following this unit? How can we design this unit to be an effective, useful, and meaningful learning experience for them? How can we describe this plan in clear, precise, concise statements that will keep teachers and students on track throughout the unit?"

This is the "deep work" of teaching: designing instruction that takes teachers deep into content and deep into consideration of their students' learning. And although this example shows teachers planning collaboratively, it may be done just as effectively by individual teachers. What makes this approach to instructional design successful is that it goes far beyond selecting activities and writing tests; it extends past the teacher's performance to address the bedrock of the whole educational enterprise—demonstrated student learning.

The term "deep design" is intended to distinguish student- and learning-centered lesson planning from the classroom-centered, activity-oriented planning that is common among beginning teachers. Deep design work is not directly visible to students or to anyone else who is not part of it. Preservice and novice teachers may be only somewhat aware of its existence and its importance. It is based not on questions of "What will I do Monday morning?" or "What activity will my students enjoy?" but on questions of

what and how students will learn, and how teachers and other education stakeholders will know that students have learned.

Figure 1.1 contrasts the extremes of these two approaches to instructional design.

Figure 1.1 • Contrasting Views of Instructional Design

Teacher- and Classroom-Centered Instructional Design	Student- and Learning-Centered Instructional Design
Focus on activities	Focus on what kinds of thinking students do
Focus on teacher performance	Focus on intellectual skills students develop
Focus on classroom events and experiences	Focus on what students take away from the classroom events and experiences
Burning question: "What will we be doing today?"	Burning question: "What will students be learning today?"
Planning addresses only the teacher's time with students	Planning addresses long-term outcomes

The visible parts of a teacher's job—the instructing, assigning, organizing, and assessing—are not easy to do, but their functions and importance are obvious. But because the teacher's planning for every student's learning is not so visible, it's harder to explain who and what such planning is for. New teachers, or teachers who have not been trained to design instruction in the deepest sense, may reasonably assume that planning is for teachers; it tells the teacher what to do. Or they may see planning as something done for administrators, who want to ensure that every teacher has a plan in place to address state academic standards. The idea of planning being for students' benefit might be last on the list—or missing from it altogether.