planning, is thus the essence of understanding by design. What is difficult for many teachers to see (but easier for students to feel!) is that, without such explicit and transparent priorities, many students find day-to-day work confusing and frustrating.

The twin sins of traditional design

More generally, weak educational design involves two kinds of purposelessness, visible throughout the educational world from kindergarten through graduate school, as noted in the Introduction. We call these the "twin sins" of traditional design. The error of activity-oriented design might be called "hands-on without being minds-on"—engaging experiences that lead only accidentally, if at all, to insight or achievement. The activities, though fun and interesting, do not lead anywhere intellectually. As typified by the apples vignette in the Introduction, such activity-oriented curricula lack an explicit focus on important ideas and appropriate evidence of learning, especially in the minds of the learners. They think their job is merely to engage; they are led to think the learning *is* the activity instead of seeing that the learning comes from being asked to consider the *meaning* of the activity.

Activity & Coverage w/ no thought

A second form of aimlessness goes by the name of "coverage," an approach in which students march through a textbook, page by page (or teachers through lecture notes) in a valiant attempt to traverse all the factual material within a prescribed time (as in the world history vignette in the Introduction). Coverage is thus like a whirlwind tour of Europe, perfectly summarized by the old movie title *If It's Tuesday, This Must Be Belgium,* which properly suggests that no overarching goals inform the tour.

As a broad generalization, the activity focus is more typical at the elementary and lower middle school levels, whereas coverage is a prevalent secondary school and college problem. Yet, though the apples and world history classrooms look quite different with lots of physical activity and chatter in the former versus lecturing and quiet note taking in the latter, the design result is the same in both cases: No guiding intellectual purpose or clear priorities frame the learning experience. In neither case can students see and answer such questions as these: What's the point? What's the big idea here? What does this help us understand or be able to do? To what does this relate? Why should we learn this? Hence, the students try to engage and follow as best they can, hoping that meaning will emerge.

■ MISCONCEPTION ALERT!

Coverage is not the same as *purposeful survey.* Providing students with an overview of a discipline or a field of study is not inherently wrong. The question has to do with the transparency of purpose. *Coverage* is a negative term (whereas *introduction* or *survey* is not) because when content is "covered" the student is led through unending facts, ideas, and readings with little or no sense of the overarching ideas, issues, and learning goals that might inform study. (See Chapter 10 for more on coverage versus uncoverage.)

Students will be unable to give satisfactory responses when the design does not provide them with clear purposes and explicit performance goals highlighted throughout their work. Similarly, teachers with an activity or coverage orientation are less likely to have acceptable answers to the key design questions: What should students understand as a result of the activities or the content covered? What should the experiences or lectures equip them to do? How, then, should the activities or class discussions be shaped and processed to achieve the desired results? What would be evidence that learners are en route to the desired abilities and insights? How, then, should all activities and resources be chosen and used to ensure that the learning goals are met and the most appropriate evidence produced? How, in other words, will students be helped to see *by design* the purpose of the activity or resource and its helpfulness in meeting specific performance goals?

We are advocating the reverse of common practice, then. We ask designers to start with a much more careful statement of the desired results—the priority *learnings*—and to derive the curriculum from the performances called for or implied in the goals. Then, contrary to much common practice, we ask designers to consider the following questions after framing the goals: What would count as evidence of such achievement? What does it look like to meet these goals? What, then, are the implied *performances* that should make up the assessment, toward which all teaching and learning should point? Only after answering these questions can we logically derive the appropriate teaching and learning experiences so that students might perform successfully to meet the standard. The shift, therefore, is away from starting with such questions as "What book will we read?" or "What activities will we do?" or "What will we discuss?" to "What should they walk out the door able to understand, regardless of what activities or texts we use?" and "What is evidence of such ability?" and, therefore, "What texts, activities, and methods will best enable such a result?" In teaching students for understanding, we must grasp the key idea that *we are coaches of their ability to play the "game" of performing with understanding, not tellers of our understanding to them on the sidelines.*

Design Tip

To test the merits of our claims about purposelessness, we encourage you to sidle up to a student in the middle of any class and ask the following questions:

What are you doing?

Why are you being asked to do it?

What will it help you do?

How does it fit with what you have previously done?

How will you show that you have learned it?

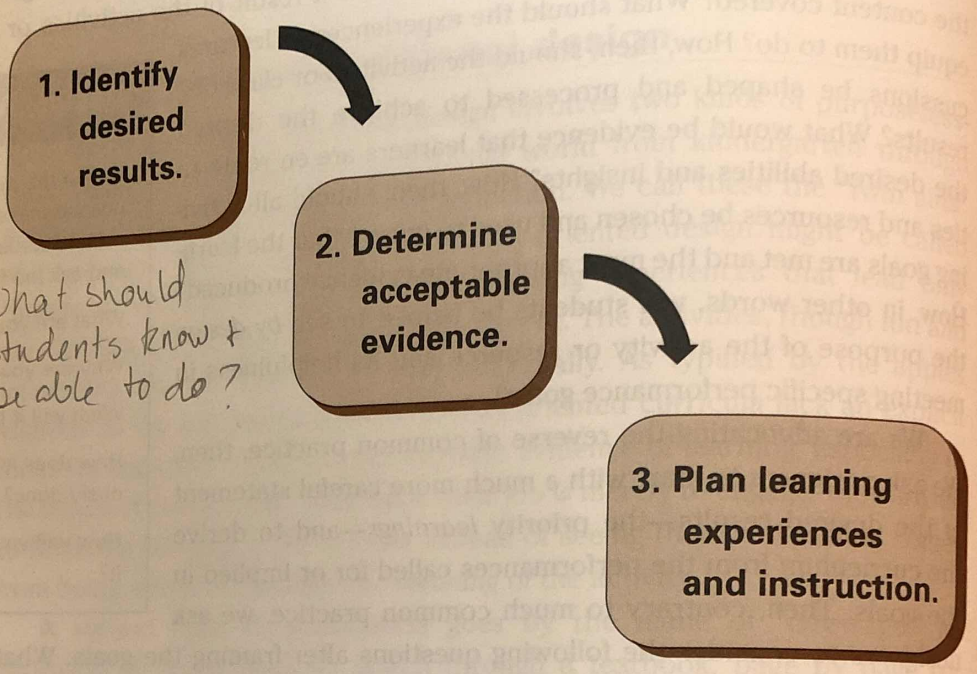
The three stages of backward design

We call this three-stage approach to planning "backward design." Figure 1.1 depicts the three stages in the simplest terms.

Stage 1: Identify desired results

What should students know, understand, and be able to do? What content is worthy of understanding? What *enduring* understandings are desired?

Figure 1.1
UbD: Stages of Backward Design



What should students know & be able to do?

In Stage 1 we consider our goals, examine established content standards (national, state, district), and review curriculum expectations. Because typically we have more content than we can reasonably address within the available time, we must make choices. This first stage in the design process calls for clarity about priorities.

Stage 2: Determine acceptable evidence

How will we know if students have achieved the desired results? What will we accept as evidence of student understanding and proficiency? The backward design orientation suggests that we think about a unit or course in terms of the collected assessment evidence needed to document and validate that the desired learning has been achieved, not simply as content to be covered or as a series of learning activities. This approach encourages teachers and curriculum planners to first "think like an assessor" before designing specific units and lessons, and thus to consider up front how they will determine if students have attained the desired understandings.

Stage 3: Plan learning experiences and instruction

With clearly identified results and appropriate evidence of understanding in mind, it is now the time to fully think through the most appropriate instructional activities. Several key questions must be considered at this stage of backward design: What enabling knowledge (facts, concepts, principles) and

skills (processes, procedures, strategies) will students need in order to perform effectively and achieve desired results? What activities will equip students with the needed knowledge and skills? What will need to be taught and coached, and how should it best be taught, in light of performance goals? What materials and resources are best suited to accomplish these goals?

Note that the specifics of instructional planning—choices about teaching methods, sequence of lessons, and resource materials—can be successfully completed only after we identify desired results and assessments and consider what they imply. Teaching is a means to an end. Having a clear goal helps to focus our planning and guide purposeful action toward the intended results.

■ MISCONCEPTION ALERT!

When we speak of evidence of desired results, we are referring to evidence gathered through a variety of formal and informal assessments during a unit of study or a course. We are not alluding only to end-of-teaching tests or culminating tasks. Rather, the collected evidence we seek may well include traditional quizzes and tests, performance tasks and projects, observations and dialogues, as well as students' self-assessments gathered over time.

Backward design may be thought of, in other words, as purposeful task analysis: Given a worthy task to be accomplished, how do we best get everyone equipped? Or we might think of it as building a wise itinerary, using a map: Given a destination, what's the most effective and efficient route? Or we might think of it as planning for coaching, as suggested earlier: What must learners master if they are to effectively perform? What will count as evidence *on the field,* not merely in drills, that they really get it and are ready to *perform with understanding, knowledge, and skill* on their own? How will the learning be designed so that learners' capacities are developed through use and feedback?

This is all quite logical when you come to understand it, but "backward" from the perspective of much habit and tradition in our field. A major change from common practice occurs as designers must begin to think about assessment *before* deciding what and how they will teach. Rather than creating assessments near the conclusion of a unit of study (or relying on the tests provided by textbook publishers, which may not completely or appropriately assess our standards and goals), backward design calls for us to make our goals or standards specific and concrete, in terms of assessment evidence, as we begin to plan a unit or course.

The logic of backward design applies regardless of the learning goals. For example, when starting from a state content standard, curriculum designers need to determine the appropriate assessment evidence stated or implied in the standard. Likewise, a staff developer should determine what evidence will indicate that the adults have learned the intended knowledge or skill before planning the various workshop activities.

The rubber meets the road with assessment. Three different teachers may all be working toward the same content standards, but if their assessments vary considerably, how are we to know which students have achieved what? Agreement on needed evidence of learning leads to greater curricular coherence and