

Perhaps as a result of the lack of an overall vision for what constitutes mastery, education has a long-standing practice of turning worthy learning goals into lists of bits. One might even say that this practice is the original sin in curriculum design: Take a complex whole, divide it into small pieces, string those together in a rigid sequence of instruction and testing, and call completion of this sequence “mastery.” Although well-intentioned, this practice leads to needlessly fractured, boring, and ultimately ineffective learning that never prepares students to be fluent and skilled in authentic work.

Many schools that call themselves mastery-based (or proficiency-based or competency-based) are using invalid and unjustified schemes for giving scores and accolades. Rather than designing backward by establishing complex, worthy, and valid tasks on which students must demonstrate high-level ability, schools too often reduce mastery to a high grade on a simplistic and non-validated assessment.

Mastery is effective transfer of learning in authentic and worthy performance. Students have mastered a subject when they are fluent, even creative, in using their knowledge, skills, and understanding in key performance challenges and contexts at the heart of that subject, as measured against valid and high standards.

You haven't mastered a subject if you only possess skills and facts in isolation and can only produce them on demand in response to prompts. Mastery must be tested using authentic tasks and scenarios at the heart of "doing" the subject. And instruction for mastery must be designed backward from these corner stone tasks.

Ensuring that students can perform authentic tasks is necessary for mastery, but not sufficient. We also need to ensure that we're assessing work on those tasks against valid, high standards.

The standards question is not so much what to teach—the inputs—but rather what level of performance counts as mastery in local grading and scoring of student work—the outputs. In the workplace, when we say your work is not up to standard, we're referring to the quality of your product, not just whether you included the content. Similarly, in track and field we don't ask that you merely "cover" the high jump, and in French class we don't say you reached mastery just because you got decent grades on quizzes. We expect a performance output—a "good enough" jump height or French conversation—that meets a defensible standard.