# Setting Strong Standards







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ince the late 1980s, education reform has come to be driven by one prevailing concept—the setting of academic standards for what students should learn and using these standards as a beacon to guide all other system components. This movement, often referred to as standards-based reform, entails clear, measurable standards in the core academic subjects for elementary and secondary school students; rigorous coursework coupled with high expectations for student performance; and alignment of curriculum, assessments, and professional development to the standards.

In the view of the American Federation of Teachers (AFT), strong academic standards are essential for providing the sturdy foundation we need to dramatically improve student achievement and gain public confidence in our education system. Clear and rigorous standards serve as a guide to focus our collective energy and resources on improving the academic performance of our students. Standards help guarantee that all children, regardless of background or neighborhood, are exposed to a rigorous academic curriculum throughout their educational careers. Standards help everyone in the education system hold students to more rigorous learning than they have been expected to master in the past. Standards help ensure continuity of academic experience from grade to grade and school to school, serving to mitigate the negative effects of student mobility. And standards can put an end to the destructive, deceiving practice of social promotion. It all starts with a strong set of standards.

In 1993, under the leadership of the late Albert Shanker, then presi-



dent of the AFT, a national group called the Education Subcouncil to the Competitiveness Policy Council outlined the steps necessary to implement standards-based reform. Propelled by the work of this council and to bring clarity and consensus to the standards-setting process as states were beginning, in 1994, the AFT developed a set of criteria to guide states as they developed high-quality academic standards. For a decade, we have tracked states' standards-setting progress and have found both encouraging news and that more work lies ahead. On a positive note, we have found that:

- 30 states now have standards that meet our common core criteria.
- Most states have had more difficulty setting clear and specific standards in English and social studies than in math and science.
- More states are emphasizing academics.
- An increasing number of states are providing more incentives to encourage students to reach higher standards.

However, our research shows that too many states still lag behind in:

- Developing curriculum to accompany standards.
- Providing funding for intervention to help students meet standards.
- Aligning rigorous academic standards to assessments, curriculum, accountability systems, and staff development.

Where standards-based reform is concerned, there is still much work to be done.

While a system of standards, curriculum, assessments, professional development, intervention, and accountability is necessary for raising student achievement, this publication only focuses on criteria for high-quality content standards for students. We hope that teachers, parents, and other interested citizens will continue to find them useful in their attempts to judge whether what has been put forward in the name of "standards" is acceptable and worthwhile. Adopted and implemented with care, academic standards can be a powerful tool for improving the American educational system.



# The American Federation of Teachers' Criteria for Setting Academic Standards

#### 1. Standards must focus on academics.

What are students expected to learn in each of the core academic subjects? This question is at the heart of what a good set of academic standards should convey. It is not enough for state standards to simply touch upon or reference the core subject areas. Each discipline represents a body of knowledge and a "disciplined" way of thinking that has evolved over centuries.

To be complete, a set of standards must embody the knowledge essential to each of the core subjects, and this cannot be accomplished by trying to fit disciplinary knowledge into broad over-arching, non disciplinary categories such as "critical thinking" and "problem solving." If standards setters ignore or significantly blur disciplinary boundaries, they risk losing the integrity of the disciplines—the essential knowledge and skills that make each subject unique.

Although interdisciplinary study has merit, interdisciplinary teaching should be a pedagogical decision rather than a broad policy imperative shaped by state standards. The standards, themselves, should not be interdisciplinary. They are meant to define what is essential for students to learn; standards should not dictate how that material should be taught. Those decisions are best left to the professionals in the schools.

## 2. Standards must be grade by grade or clustered for selected grade spans in elementary, middle, and high school.

No matter how clear and specific standards may be, if they do not indicate the various grades or levels at which students are expected to mas-

ter specific materials, they are not useful. A document that merely states what students are to accomplish by the end of schooling does not provide sufficient guidance to teachers as to what students should learn along the way.

Documents that simply repeat the same standard for elementary, middle, and/or high school, or from grade to grade, are nearly as ineffective as those with no grade breakdowns because they do not indicate the development expected of students as they move through school. Standards that assert "student work will reflect a grade-appropriate level of quality and complexity" without also defining "grade appropriate" are equally inadequate.

Standards should require that elementary school students be exposed to a solid foundation of knowledge and skills in a subject to facilitate a more in-depth study of the subject when students reach upper grades. At each subsequent level, the standards should develop from the strong content presented at the previous level, thus enabling the development of a curriculum from elementary to high school that depends on, and makes explicit to teachers, the prior knowledge students need to achieve at higher standards as they advance through school.

## 3. Standards must be clear and specific enough to lead to a common core curriculum.

Strong standards must provide clear guidance to teachers, curriculum and assessment developers, textbook publishers, and others so that one person's interpretation of the core knowledge and skills students should learn in a particular grade level or education level—elementary, middle, or high school—will be fairly similar to someone else's. If the standards are unclear, the curriculum across schools and districts can vary widely, and the integrity of any assessments based on the standards may be compromised. Teachers, students, parents, and others will be left to guess the academic content and expectations for mastery; and if they guess wrong, student achievement will suffer.

As other industrialized countries have discovered, through the development of a common core curriculum we would begin to accrue a more focused body of knowledge and a portfolio of good practice with materials and options that teachers and teacher educators could draw from,

adapt, add to, polish, and refine. But this process requires broad agreement on what is most essential to learn. Moreover, a core curriculum should not limit students who choose to go beyond the standards to advanced-level coursework in any of the academic subjects, nor should it prevent an integration of the academic core with vocational or technical education. Table 1 presents a few real examples of standards that meet and do not meet the AFT criteria.

Table 1 Examples of Strong and Weak Standards		
	Strong Standards	Weak Standards
English	Students should be able to develop a descriptive essay that depicts an object or event, maintains a consistent focus, uses a logical sequence, and elaborates each idea with specific details and vivid vocabulary. (Grade 5)	Students should be able to construct meaning through experiences with literature, cultural events, and philosophical discussion. (No grade level indicated.)
Mathematics	The student will differentiate between area and perimeter and identify whether the application of the concept of perimeter or area is appropriate for a given situation. (Grade 5)	Students should become mathematical problem solvers. To develop these abilities, students need the experience of working with diverse problem-solving situations. (No grade level indicated.)
Science	Students should be able to describe the basic processes of photosynthesis and respiration and their importance to life. (Grade 5)	Students should be able to use basic science concepts to help understand various kinds of scientific information. (Upper Elementary)
Social Studies	Students should be able to describe how United States' Federalism was transformed during the Great Depression by the policies of the New Deal and how that transformation continues to affect U.S. society today. (Grade 9-12)	Students should be able to understand, analyze, and interpret historical events, conditions, trends, and issues to develop historical perspective. (No grade level indicated.)

## 4. Standards must include particular content in each of the four major content areas—English, math, science, and social studies.

We reviewed numerous documents and reports to determine where there was consensus on the content that all students should learn in each subject area. Even if standards documents are clear and specific, they are insufficient if they do not include the following content at each education level—elementary, middle, and high school:

- **English:** The basic skills and knowledge that are the foundations of learning how to read (e.g., letter/sound recognition, decoding skills, vocabulary), reading comprehension (e.g., exposure to a variety of literary genres), writing conventions (e.g., spelling, writing mechanics), and writing forms (e.g., narrative, persuasive, expository). In laying out these standards, it is important to indicate in which grades or grade spans key elements will be taught.
- **Math:** The standards must provide guidance on the specific mathematical concepts students should learn at each level—number sense and operations, measurement, geometry, data analysis and probability, and algebra.
- **Science:** Specific earth, physical, and life sciences must be present at each level in the science standards.
- **Social Studies:** Specific references to U.S. history, world history, and civics at each level.

#### 5. Standards must attend to both content and skills.

Debates have raged over what the AFT believes is a false dichotomy between the importance of emphasizing "knowledge" (e.g., facts, theorems) versus the importance of emphasizing "skills" (e.g., problem-solving) in the development of academic standards. Proponents of emphasizing "knowledge" contend that learning facts, theories, and concepts provides a critical foundation for students to be able to apply what they are learning to life and future studies. Proponents of emphasizing "skills" argue that students need to learn techniques such as problem-solving, decision-making, and higher order thinking in order for them to make use of the facts that, without some grounding, are fairly inaccessible.

The AFT believes that both knowledge and skills are important and that they are mutually supportive. Drawing a false dichotomy between the two risks the development of academic standards that neglect subject matter—that is, the facts, ideas, concepts, and information—of the traditional academic disciplines that are needed to develop the skills in the first place.

It is not enough for standards to emphasize the skills students should learn but leave the content to local discretion. It is also not enough for standards to emphasize subject knowledge with no discussion of the skills needed to apply that knowledge. Skills isolated from content and context, or content items isolated from applications, are meaningless and impossible to teach or assess. To lead to a common core of learning across the state, standards must pursue process and application skills through the specific content of the subject areas.

For example, it is not enough for standards to simply name the "U.S. Revolutionary War" but provide no elaboration. Do students need to know the dates of the Revolutionary War, or should they analyze its causes and effects? Without some guidance on what students should be able to do with the knowledge, the quality and complexity of the student work will differ substantially across the state. Also, curriculum designers and assessment developers will be forced to make their own determination of what content to teach and how to assess students' understanding. Some students may be grossly unprepared for the tests through no fault of their own or their teachers, but because the standards were not clear about the application skills students needed to be able to master.

#### 6. Standards must be manageable, given time constraints.

Neither the standards nor the resulting curriculum should try to cover everything there is to be taught. A core curriculum probably should constitute somewhere from 60 percent to 80 percent of the academic curriculum, leaving the remainder for districts, schools, and teachers to fill in.

According to a 1994 report by the National Education Commission on Time and Learning called Prisoners of Time, American students spend about half as much time on academics as their overseas counterparts, averaging about 40 percent over the course of a school career. Rigorous academic content standards can reverse this trend.

Nevertheless, as states begin to adopt standards, they will face competing demands for time in the curriculum—both within and among the disciplines. Standards setters will need to exhibit restraint in the face of these pressures. Their job is to determine what is essential for students to learn. A laundry list that satisfies everyone will be self-defeating, leaving teachers where they are now—facing the impossible task of trying to rush through overstuffed textbooks and ridiculously long sets of curriculum objectives.

#### 7. Standards must not dictate how material should be taught.

Good standards are designed to guide, not limit, instruction. They are intended to communicate to educators and others what is most important for students to learn, but not how the ideas or information should be taught. If, for example, a set of standards includes teaching activities, they should be there for illustrative purposes only. Standards should not infringe on teachers' professional responsibilities or limit their ability to choose their particular teaching methods and to design their lessons in ways that reflect the best available research and that are best suited to their students' needs.

#### 8. Standards must be rigorous and "world class."

Much of the discussion about education standards has focused on the need to bring American students up to "world-class" levels of achievement. Findings from the Third International Mathematics and Science Study (TIMSS) compare the math and science achievement of U.S. fourth, eighth, and 12th graders with the achievement of their respective international peers. Results show that while U.S. student performance compares more favorable with international performance in the early grades, it falls further and further behind in the eight and 12th grades. TIMSS reveals that in the U.S., students in the early grades tend to study the same foundational content as most of the world at the elementary level, and our students perform well on the basics. In middle school, in contrast to what happens in the rest of the world, U.S. math instruction does not take previously taught content to more complex levels, nor does it introduce challenging material that prepares students to learn in higher-level content in the later grades. Consequently, our eighth graders are still studying basic material that their international peers have mastered. This, in turn, affects what is taught and achieved in the 12th grade.

For standards to be truly world class, they must establish expectations for American students that are at least as demanding as those set for students in other high-achieving countries. It means placing American standards side by side with the best the world has to offer and seeing how well they measure up. It means studying the actual curriculum frameworks, exams, and samples of student work from a variety of countries to determine what students around the world are expected to learn, at what age or grade level it is taught to them, how well they are expected to know it, and the means by which they are asked to demonstrate that knowledge.

Everyone involved in developing standards, whether at the national, state, or local level, must take benchmarking seriously. Information on other countries is not always easy to obtain, but we as a nation must do a better job of it if our standards are going to help students achieve their maximum potential. Nothing will be accomplished by setting standards that are too low. Yet, without honest international benchmarking, we will be captives of our own parochial notions of what students can accomplish, and low standards may very well be the result.

## 9. Standards must be written clearly enough for all stakeholders to understand.

Part of the challenge states face when developing standards is how to generate broad public support for them. Importantly, therefore, standards should be written for multiple audiences, not just for educators. They must be written clearly enough for parents, students, and interested community members to understand and be inspired by them. Otherwise, standards developers risk alienating the very people whose trust and support they most need.

Our best advice to writers of standards is to consider what the language of each standard will mean to everyone who will read it. Avoid jargon. Be specific. Make the standards clear so that teachers understand what is required of them and their students. And make them accessible so that parents can understand the expectations set for their children and how to monitor their child's progress. Standards should send a coherent message to employers and colleges about what students will

know and be able to do when they graduate from high school. Students should be able to read the standards and get a clear idea of what they are expected to achieve.

#### It All Starts with Strong Standards

If states are to achieve the goal of educating all students to higher levels of learning, they must develop comprehensive and coherent standards-based education systems. These systems comprise rigorous standards; curriculum and assessments based on the standards; professional development for teachers to help bring standards into the classroom; academic intervention for students struggling to meet the standards; and accountability mechanisms so that students, parents, and schools take the standards seriously.

#### **Student Achievement Standards-Setting Guidelines: Summary**

Subject matter standards and a common curriculum show promise to make substantial improvements in the way we educate our children. The AFT's guidelines are as follows:

- 1. Standards must focus on academics.
- 2. Standards must be grade by grade or clustered for selected grade spans in elementary, middle, and high school.
- 3. Standards must be clear and specific enough to lead to a common core curriculum.
- 4. Standards must include particular content in each of the four content areas—English, math, science, and social studies.
- 5. Standards must attend to both content and skills.
- 6. Standards must be manageable, given time constraints.
- 7. Standards must not dictate how material should be taught.
- 8. Standards must be rigorous and "world class."
- 9. Standards must be written clearly enough for all stakeholders to understand.

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