Ayers (2000) presents some very strong arguments against the current movement towards more testing and more basic skills. In this note, I will review some of Ayers' points, present how I assume testing and skill supporters would respond, and then respond to these counterarguments. I will conclude that underlying the testing and skills movement is a delayed gratification skill-building view of learning, and that this view is not supported by empirical data.

**Ayers' arguments**

Among other arguments, Ayers notes that tests bleed time from other activities. She reports that her colleagues complain that they only have time to teach to the test. In some cases, there is not even time for recess. In addition, the tests emphasize the wrong things. Quoting Art Costa, Ayers notes that tests focus on what is easy to measure but educationally insignificant, while ignoring what is hard to measure and what is educationally significant. Educationally important concepts, Ayers notes, cannot be reduced to multiple-choice format.

Finally, tests and the skill building activities that are supposed to prepare children for tests are dull. Ayers would like children to have fun at school.

**The responses**

From my understanding of the skill-building approach, supporters of the testing movement would respond as follows:

The time spent doing skill-building preparing for tests is very well spent. Children cannot do interesting and creative work until they master their skills. Children need a firm foundation, a rock-hard knowledge of language skills (spelling, phonics, grammar) before they use these skills in real reading and writing, and a large stockpile of facts before they can apply these facts in problem-solving.

Learning is not fun. Learning is hard work, and there is no way to avoid it. Just
because something feels good does not mean it is good for you. Enjoyment comes as a result of mastery of skills.

Underlying the skill-building view is "the skill-building hypothesis." For language and literacy development, this hypothesis holds that we learn language by first learning the component parts. This is done through conscious understanding of rules, and output "practice," and is fine-tuned via error correction. We can only use language in real situations after we have mastered the basics. The skill building hypothesis is thought to apply to reading (phonics first), writing (spelling and grammar first), and second language acquisition in general. For concept development, the skill-building hypothesis holds that we first learn facts, and only later can apply these facts to build higher level concepts.

The skill building view is thus a tough love, delayed gratification theory of learning.

Another view

The "Comprehension Hypothesis" holds that language and literacy are developed when we understand messages. For reading, this is the view that we "learn to read by reading" (Smith,1994; Goodman, 1982). The Comprehension Hypothesis also holds that "skills" are the result of reading, not the cause, that real reading is the source of much of our knowledge of phonics, vocabulary, spelling, grammar, and our ability to write with an acceptable writing style.

The Comprehension Hypothesis is supported by a substantial amount of research. This research contains an interesting result: When studies compare students given a "comprehension" approach (lots of meaningful reading) with those who are given skills, the readers not only do better on tests of reading comprehension, they also do just as well on tests of skills! (Krashen, 1999). This pulls the rug out from under the argument that skills need to be drilled and that they need to come first.

The same result is true in second language acquisition research. Those who are provided with more comprehensible input in second and foreign language classes do better on all tests related to real communication. On grammar tests, there is usually no difference between the groups, and occasionally the comprehensible input students actually do better (Krashen, 1994a).

The analogous hypothesis in terms of concept learning is the "problem-solving" hypothesis: Our knowledge of facts and concepts is the result of our attempts to solve interesting problems.
Research evidence for the problem-solving hypothesis is reviewed in several places, e.g. Smith (1975, 1998), Krashen (1990, 1995), but I cannot resist one obvious piece of evidence: Smart people don't study, they try to solve problems. The world's great chemists, Linus Pauling and Glenn Seaborg, did not review the periodic table each morning. Their encyclopedic knowledge of chemistry (and physics) came from decades of attempting to solve fundamental problems in chemistry.

Thus, Ayers' project in calculating the volume of a silo not only resulted in deeper knowledge of mathematics, but may also have resulted in considerable skill development. In addition, it was probably more enjoyable than worksheets.

**Having fun**

Despite incredible claims that children actually enjoy doing mindless exercises, fueled no doubt by infomercials, there is good evidence that students enjoy real reading and hearing stories (Krashen, 1994b; Von Sprecken, Kim, and Krashen, 1998; Ramos and Krashen, 1998) and that they like these activities better than drills (Greaney, 1970; McQuillan, 1994). There is also evidence that comprehensible input-based methods for second and foreign language teaching are more enjoyable than grammar-based methods (Krashen, 1994b), and it is reasonable to hypothesize that solving interesting problems is more enjoyable than memorizing facts. What is best for children appears to be what is most enjoyable.

But this is not to say that if an activity is pleasant it is always good for children; "if it feels good, it must be good for you" is inaccurate. Rather, what appears to be correct is the following: If an activity is helpful for language, literacy, or concept development, children will find it to be interesting and enjoyable.

**Conclusions**

There is considerable evidence supporting the validity of Ayers' criticisms of the testing/skill building movement. Interesting reading and problem-solving will lead to acceptable levels of skills, and there is no need for delayed gratification and tough love. Children and teachers have the right to enjoy school at all grade levels.
References


