

If It Quacks Like a Duck, It's Probably Baloney

Martin A. Kozloff, Ph.D.

Watson School of Education

University of North Carolina at Wilmington

April, 2002

For the past thirty or so years, education professors, education gurus, and education organizations (such as the National Council for Teachers of English, the National Association for the Education of Young Children, and the National Council for Teachers of Mathematics) have managed to establish and sustain dominion over public education—dominion over what is taught, how it is taught, how instruction will be evaluated, what education means, and what a good teacher is.

This would be just fine if their ideas had anything to do with reality, if their instructional methods were tested and validated by scientific research, and if the curricula that they teach (and require new teachers to use; e.g., whole language and constructivist math) actually worked. But they don't.

And the result is the high rate of student illiteracy in reading and math; the low level of students' knowledge of history, logic, and science; and the high rate of teacher burnout from too many years trying to get students engaged and learning using methods derived from education professors' pseudo-progressive “student-centered” fantasies—which are disastrous for students and teachers but do help the professors to get publications, royalties, tenure, and nice retirement annuities.

Thankfully, enough parents, consumer organizations, state legislators, serious educational researchers, and even federal agencies have **tied together two simple facts**—

- 1. Too many students aren't learning much.**
- 2. This may have something to do with instruction.**

And therefore, our nation has begun to look at scientific research on which methods of instruction and which curricula in reading and math work best and which do not, and at what is taught in schools of education.

(See <http://www.nationalreadingpanel.org> and <http://www.mathematicallycorrect.com> and <http://www.uncwil.edu/people/kozloffm/teacherprep.html> .) However, in the meantime, ordinary citizens ought to know the difference between sound instruction and snake oil.

Oil of Snake

When you read or hear the following terms used to describe, advertise, or justify a teaching method (what educators like to call “practices”) or a curriculum (e.g., in reading), you can be nearly certain that it is not based on experimental research; it has not been field tested; it is not likely to work.

1. “*Best Practices.*” The term “best practices” is *arrogant puffery* designed to sell methods and values that so-

called progressive, “child-centered” educators want everyone else to use. There has never been an experiment, and there could never be an experiment, that shows one practice or set of practices to be best. When an “educator” speaks about how they use best practices, or says something like, “We don’t teach phonics. It’s not best practice,” ask them, “How can anyone possibly know what’s best?” You’ll get a blank stare and a load of jive talk.

2. *“Developmentally appropriate practices.”* This phrase is a rhetorical device by which self-styled “child-centered” educators and publishers try to convince gullible education students, teachers, and parents that what they sell (“inquiry learning,” “discovery learning,” “constructivism,” “whole language”) is good, and that direct instruction, practice, and teaching elemental skills first are bad.

There is no serious research whatever to support claims about what is developmentally appropriate. Instead, the validation is nothing more than repetition of this vapid phrase—a chant. The evil side is that advocates of “developmentally appropriate practices” believe that preschool kids should not be taught in a systematic fashion how to read. Maybe some kids don’t need this, but disadvantaged kids often do. So, advocates of “dap” either do not know (are so blinded by their beliefs that they do not care) that disadvantaged kids will be denied exactly the sort of instruction they need to catch up with their advantaged peers. This is how “educational philosophy” means the same as “the higher immorality.”

3. *“It is best when the teacher is a facilitator rather than a transmitter of knowledge. It is best for students to discover and construct knowledge on their own.”* Would you want your children’s physicians to have been taught this way? Would you want your children to discover how to swim by being “immersed” in the ocean? Of course not. How so-called educators can advocate (in fact, insist on) “inquiry” methods regarding reading, spelling, math, and science is a great mystery. Staggering ignorance is one possible explanation.

4. *“Homogeneous grouping for a short time each day for certain subjects based on students’ current skills is bad. It lowers self esteem and creates tracks. It is discrimination.”* This is another weird idea that is supposed to represent educators’ democratic values and promote “social justice.” In fact, by denying many kids the amount of close instruction they need, it actually produces injustice. Because in mixed groupings (called “heterogeneous”) kids with the strongest backgrounds move the fastest and the rest fall behind and feel like morons.

5. *“It is better for teachers not to correct students’ errors immediately. Error correction makes students dependent on the teacher. Therefore, students should discover errors themselves and learn to correct them.”* In fact, research on error correction shows that failure to correct errors results in chronic error patterns and worsening knowledge gaps. For example, if a teacher does not immediately correct reading errors, a student will not be able to read math problems accurately either. Timely error correction yields higher achievement and self-esteem.

6. *“Having students frequently practice skills is not an effective way to foster mastery and self-esteem. Frequent practice inhibits creativity and is boring.”* There is absolutely no research to support this bogus proposition. In contrast, 100 years of serious research shows that practice makes perfect and that perfection makes for pride. Ask any musician, dancer, writer, karate master, marksman, cook, medical intern, or barber.

7. *“It is best for teachers to create their own curricula and lesson plans, rather than follow programs. Following programs disempowers teachers and stifles creativity.”* These are the words of a person who believes he or she is in education to develop himself or herself first, and perhaps children later. All of the serious professions (medicine, engineering, architecture) create protocols (techniques) for accomplishing routine tasks (surgery, designing

buildings), and skilled professionals follow the protocols. Creativity is in *adapting* the protocols in *unusual* situations.

Besides, teachers are *not prepared* to develop and test curricula they invent. [Teachers take perhaps one course in instructional design.] Besides, do you want teachers testing curricula on your children? That some teachers insist on creating their own “way” to teach reading or math, rather than using effective curricula that have been tested for 20 years, is a good definition of *malpractice*.

8. “*Higher-order thinking*.” This phrase means no more than thinking. Some educators use this phrase to make themselves appear scholarly. It's a cop out that enables them to by-pass instruction on elemental skills first. “We don't work on the elemental math routines first. We work on higher order math skills, as in solving problems.” [Working on problem solving *before* students know the basic techniques and concepts means that students won't learn how to do math *at all*.]

9. “*Reflection*.” Some educators never tire of using this word and associated practices, such as journal writing, because it's easier than actually teaching hard subjects. “Okay, everyone, let's write a journal entry on how we *feel* about *The Diary of Anne Frank*.” [Of course, students have been taught nothing about fascism.]

The Real Thing

Here, in a nutshell, is what you *do* want to see.

1. The teacher knows and can state *exactly* what she wants students to learn at all times; i.e., she can say exactly what students will be able to *do*.

"I am teaching the *strategy* for decoding words. By the end of the week, students will be able accurately and rapidly to sound out sit, mit, sam, am, can, man, fit, and ran."

"I am teaching the *concept* democracy. By the end of the lesson, students will be able to state the verbal definition of democracy, to distinguish between democratic and nondemocratic forms of political society, and will be able to develop examples and non examples of democracies."

"I am increasing *fluency* at math facts. By the end of the week, students will be able to solve about 15 one-digit adding and subtracting problems per minute with at least 90 percent accuracy."

When objectives are this clear, teachers are able to plan exactly how to teach and how to evaluate the effects of instruction. If teachers can't state objectives this clearly and precisely, how well do you think they teach what they can't even identify?

2. The teacher moves at a *brisk pace*—to sustain attention and get more taught.

3. The teacher stays *focused* and keeps students focused on the task at hand. Lectures, demonstrations, and discussions do not wander off.

4. The teacher *corrects all errors immediately*. "That word is 'snap.' What word? *snap*. Spell snap. *s n a p*. Okay, start that sentence again."

5. The teacher *immediately tests or checks* whether students are getting what she's is trying to teach. "Okay, your turn to read these words" or "Now, you solve this problem yourselves." If some students make errors, the teacher re-teaches the problem spot. This shows that the teacher understands down to her bones that: (1) the *only* solid measure of teaching effectiveness is students' *using* what the teacher taught; and (2) you have to check teaching effectiveness *every single time* you teach something new--the next letter/sound relationship (m says mmm), the next vocabulary word, the next rule, the next fact. This means that the teacher might be checking understanding 30 or more times per lesson.
6. The teacher often asks *questions of the whole group*, and has the whole group respond together. "Who wrote the first draft of the *Declaration of Independence*?" The teacher also calls on *individual* students, asking the question first. "When was the *Declaration* signed? (Pause for think time) Johnny."
7. The teacher gives *specific praise*. "Excellent for reading that passage with no errors!" Not, "Good reading."
8. Instruction is a *logically progressive sequence*. It begins with elemental skills (e.g., counting, math facts); and moves to increasingly complex skills (adding, subtracting; solving word problems; using these skills in other places; e.g., adding the number of plates and cups in a cupboard at home). Students are always taught pre-skills needed for next lessons.
9. The curriculum focuses on a skill (e.g., the strategy for multiplying two-digit numbers) *until it is mastered* before the teacher moves to another kind of skill (e.g., decimals). Otherwise, students master nothing, and basically have to start all over next year.
10. Homework is *not* used to teach the skill; e.g., how to multiply, or how to spell new words, or how to write a paper. (This should be done in school.) Homework is used to *generalize* or apply skills learned in school.

Here are some other sources that report on the massive amount of research on what works.

<http://www.uncwil.edu/people/kozloffm/DI.html>

<http://www.uncwil.edu/people/kozloffm/rosenshine.html>

<http://idea.uoregon.edu/~ncite/documents.html>