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**HOMAGE TO A HYPHEN:
HOW TO KEEP THE FORMATIVE-ASSESSMENT PROCESS WHAT IT SHOULD BE¹**

W. James Popham

University of California, Los Angeles

I love hyphens. Always have. Always will. If used properly, hyphens make stuff easier to read.

When employed appropriately, hyphenated words (usually adjectives) let a reader know that there's something still coming—perhaps a noun—and that the reader needs to hold off a bit before concluding what's meant by whatever phrase is currently being read. To illustrate, decide which one of the following two sentences is more easily understood: (1) "By mistake, I painted the kitchen floor a bright red." or (2) "By mistake, I painted the kitchen-floor a bright red." Notice that in the first sentence, a reader first might think I had mistakenly painted the entire kitchen red—before realizing that I'd merely messed up by slapping crimson on the floor of that kitchen. In the second sentence, however, the hyphen between "kitchen" and "floor" makes it clear that there's something still coming after "kitchen"—in this instance a wrongly painted red floor. This is why I love hyphens. They can clarify.

Accordingly, when I submit a manuscript for a book or article, that manuscript invariably contains a number of hyphens, each of them happily embarked on a clarification crusade. Editors, however, at least the ones with whom I have worked, seem to abhor hyphens. I suspect that most editors regard hyphens as evidence of an editor's shortcomings—blatant proof that no amount of editorial jiggling could expel those tiny horizontal bars. I have a hunch that certain editors, early on, secretly take an oath to expunge any expugnable hyphens they ever encounter during their careers.

Almost always, the editors who do battle with my manuscripts remove most of my hyphens, inserted by me solely in a quest for clarity. This sort of editorial hyphen-

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eradication occurs so often that I no longer tussle with editors over the hyphenation issue. Usually, there are more significant editorial wars to wage.

An Indispensible Formative-Assessment Hyphen

But there's one situation in which I am willing to put up a serious struggle regarding hyphen-excision. It's an instance in which the absence of a hyphen can seriously becloud the meaning of an instructional approach capable of benefitting thousands of students. I refer specifically to *formative assessment* or, more accurately, to the *formative-assessment process*. My contention is that the deletion of the hyphen between "formative" and "assessment" allows educators to accept an altogether inaccurate conception of an instructional approach that, when *properly* employed, benefits boatloads of children. When "formative assessment" is thought of as an unhyphenated construct, however, it is apt to be of little value to students. Let me explain.

For openers, what is this "formative-assessment process" and why is the label we affix to it even worth fussing about? In 2006 I spent almost a half year communicating with colleagues in this country and abroad regarding how best to define this assessment-based process that was, at that time, being described in many different ways. Sponsored by the Council of Chief State School Officers (CCSSO) in October 2006, a meeting of assessment specialists representing roughly half of our 50 states met in Austin, Texas to seek a serviceable definition for the formative-assessment process. After four days of deliberation, the following definition was agreed to—without dissent—by the approximately 60 educators attending that session:

Formative assessment is a process used by teachers and students during instruction that provides feedback to adjust ongoing teaching and learning to improve students' achievement of intended instructional outcomes. (Council of Chief State School Officers, 2006).

Based specifically on the above 2006 CCSSO definition, *and on the empirical evidence supporting this assessment-linked approach to instruction*, in a 2008 book I proffered my own definition. I believed this follow-up definition, presented below, sharpened some of the language of the CCSSO definition—a definition hammered out by a group and, therefore, subject to all the semantic pitfalls associated with group-generated statements:

Formative assessment is a planned process in which assessment-elicited evidence of students' status is used by teachers to adjust their ongoing instructional procedures or by students to adjust their current learning tactics. (Popham, 2008).

In both of these definitions, note that formative assessment is described, in the first few words of each definition, as a *process*. And it is for this reason, once more, I wish to emphasize that, whenever possible, formative assessment should be labeled, that is, should be described in print, as “the formative-assessment process.” It is most definitely not a test; it is a *process*. And this is where a hyphen can come roaring to the rescue. A hyphen, happily nestled between “formative” and “assessment” helps dissuade educators from thinking of formative assessment as a type of test. When we write “formative-assessment,” we know that we’ll need another word—such as “process”—to wrap up that phrase. In contrast, when we write the unhyphenated phrase, “formative assessment,” this can be seen as the end of the story, that is, as a formative assessment. I treat this issue in more detail elsewhere (Popham, 2011), but without the harangue about hyphens.

A recent analysis by Heritage drives this point home powerfully. As she asserts:

The thesis of this paper is that, despite the pioneering efforts of CCSSO and other organizations in the U.S., we already risk losing the promise that formative assessment holds for teaching and learning. The core problem lies in the false, but nonetheless widespread, assumption that formative assessment is a particular kind of measurement instrument, rather than a process that is fundamental and indigenous to the practice of teaching and learning. (Heritage, M., 2010).

Why Labels and Definitions Make a Difference

People can define things in any way they want. But divergent definitions tend to foster confusion. If one person thinks of Entity X as a certain kind of thing, but another person thinks of Entity X as another kind of thing altogether, these two people will rarely make much headway when discussing any issues associated with Entity X. Definitional clarity and, when possible, definitional agreement should always be sought.

But in the case of the formative-assessment process, getting clear-headed about what is meant by this process is even more important than usual. This is because the formative-assessment process, when used by teachers in their classrooms, leads to substantial gains in students’ learning. If teachers are confused about the meaning of this potent process, then their likelihood of using it will surely be diminished. It is tough for teachers, or anyone else, to employ something they fundamentally misunderstand.

Happily, we now have available about four decades’ worth of empirical evidence attesting to the instructional dividends of the formative-assessment process. William (2007/08) reports that five reviews of more than 4,000 studies show clearly, when this process is implemented properly, it can “effectively double the speed of student

learning.” Let’s face it, 40 years of research showing that a particular process can *double* the speed of student learning is nothing to dismiss lightly!

Earlier, Wiliam and Black had presented a rigorous review of about 250 empirical studies of the formative-assessment process (Black and Wiliam, 1998) in which they reported that the research reviewed showed “conclusively” that the formative-assessment process improves learning. But was this conclusive improvement in students’ learning really big-time or was it merely trivial? Well, Black and Wiliam (1998) indicate that the learning gains triggered by the formative-assessment process were “amongst the largest ever reported for educational interventions.”

And, in what I regard as one of the most salient conclusions of their influential 1998 review, Black and Wiliam also assert that:

Significant gains can be achieved by many different routes, and initiatives here are not likely to fail through neglect of delicate and subtle features. (Black and Wiliam, 1998).

In other words, the formative-assessment process is remarkably *robust*. It can be used by teachers and students in a variety of ways—yet it still works.

In review, then, the formative-assessment process works, it works big-time, and it can be used in diverse ways. It definitely improves students’ learning. Briefly, let’s review what this thing is that works so wondrously. Using non-technical language, the formative-assessment process involves teachers’ and/or students’ using assessment evidence to make adjustments in what they’re doing. This assessment evidence can be garnered in a variety of ways—ranging from traditional, written tests to a wide range of informal assessment procedures such as securing students’ self-reported levels of their own understanding. This process revolves around the use of assessments to collect evidence, such evidence then being employed by teachers and/or students to decide whether they need to adjust what they are up to. The formative-assessment process *uses* assessments as an integral tactic to determine whether any adjustments are needed. The assessments employed during this process are, by definition, not the same thing as the process itself.

A Process, Not a Test

Why is it, then, that many American educators regard formative assessment as a type of test? This widespread misconception usually springs from a contrast between “formative assessment” and “summative assessment.” Although this two-category split is an easy one to employ, it is nonetheless inconsistent with the nature of the empirical evidence supporting the formative-assessment process.

“Summative assessments” are regarded by many educators as those tests employed to make evaluative judgments about a *completed* instructional sequence. The most obvious examples of summative assessments these days are the large-scale accountability tests administered annually by states to appraise the effectiveness of their state’s schools and districts. But summative assessments can also refer to classroom assessments such as an end-of-course exam that a teacher might use to determine how well the teacher’s students have learned what the teacher was trying to teach.

“Formative assessments” are typically thought of as those along-the-way classroom tests that teachers create to help them and their students get a fix on how well students are learning what they are supposed to learn.

This oft-made distinction between formative and summative assessments is derivative from Scriven’s now widely accepted differentiation between formative and summative evaluation (Scriven, 1967). Applying Scriven’s *evaluation* distinction to *assessments*, it is easy to conclude that summative assessments are employed to secure evidence regarding the effects of a completed instructional sequence whereas formative assessments are used to secure en route evidence about the success of a yet-malleable instructional sequence. Although, loosely speaking, this distinction between the formative and summative roles of assessment make some sense, clarity quickly crumbles when teachers are told that “a formative assessment” is a particular kind of test.

This confusing assertion is akin to telling a would-be ocean surfer that a surfboard is the same as surfing. While a surfboard represents an important ingredient in surfing, it is only that—a *part* of the surfing process. The entire process involves the surfer’s (1) paddling out to an appropriate off-shore location in relation to a suitable set of breaking waves, (2) selecting the appropriate wave to take, (3) choosing the most propitious moment to catch the chosen wave, (4) standing upright on the surfboard, and (5) maintaining balance on the board while the wave rumbles toward the shore. The surfboard is a key component of the surfing process; it is not the entire process.

Similarly, an assessment is an important part of the formative-assessment process, but it is only that—a *part* of the formative-assessment process. The entire process involves (1) decisions about when to test and what to test, (2) selection or construction of suitable assessment procedures, (3) judgments about whether assessment-elicited evidence should lead to adjustments, and (4) choices about what any warranted adjustments should be. Assessments are a key component of the formative-assessment process; they are not the entire process.

Whether it's a novice surfer contemplating an ocean ride or a classroom teacher considering the possible use of the formative-assessment process, confusion about the nature of what's to be attempted will definitely deter progress. When teachers are told that they should employ "a formative assessment," they have been misled. And we need to minimize confusion about the formative-assessment process, not foster it.

A clear instance of the folly that transpires if one distorts the meaning of the formative-assessment process can be seen when test vendors tout their "interim tests" (also called benchmark tests) as "formative assessments." Typically, interim tests are standardized assessments administered at the district or state levels every few months, perhaps three times a year. These interim tests usually resemble a state's end-of-year accountability tests and are often employed to predict which students will have difficulty with the end-of-year accountability tests. It is assumed that, once these in-jeopardy students are identified, they can then be given sufficient remedial instruction to help them pass the upcoming accountability tests.

Despite these interim tests' often being marketed as "formative assessments," there is no persuasive evidence that they contribute meaningfully to students' improved learning. Arter (2010) arrives at such a no-proof-yet conclusion after surveying the available research evidence regarding the merits of interim assessments. Even though interim tests are often advocated these days as part of a "balanced assessment strategy" featuring classroom assessments, interim assessments, and summative assessments, Arter concludes:

It's still unclear, however, the extent to which interim assessment can produce more student learning than if the same resources were instead used to help teachers become better classroom assessors. (Arter, 2010).

As Arter observes, when districts scurry to have interim assessments in place, this "saps resources from other formative practices supported by a much larger research base" (Arter, 2010). If those district officials who choose to use interim assessments would realize that these assessments are not, in truth, *formative*, and that there is scant evidence to support their usefulness, then we might see fewer of these sometimes costly but, as yet, unproven assessments taking up classroom instructional time.

There are no such things as summative assessments or formative assessments! That's right, although these labels are used loosely and often by educators, a particular test is never a formative test, a summative test, or even an interim test. Rather, as test may be used to perform a formative function or, perhaps, serve in a summative capacity. But it is not the test *per se* that is formative or summative. It is the *use* to which the test's results are put. When we employ phrases such as "a formative assessment" or "a summative assessment," we are simply being sloppy with our language. What worries

me is that I think many educators *truly* believe formative assessments refer to particular kinds of tests that will—based on compelling research evidence—improve kids’ learning. This simply is not so.

Compassion and Confusion

Clearly, when some educators use the phrase “formative assessment,” what they really understand this label to mean is not a certain kind of test but, rather, the formative-assessment process as defined earlier in this analysis. But, just as clearly, when other educators use the phrase “formative assessment,” they really think there’s a specific sort of test sitting out there that, when used, will produce the bountiful student benefits they’ve heard about. Thus, if one of your colleagues refers to “a formative assessment,” I urge you to be compassionate. Your colleague may merely be speaking loosely or, worse when it comes to formative assessment, might be a thoroughgoing ninny. Give that person the benefit of the doubt—for a few minutes.

What’s most crucial if we are to promote an increased use by teachers of the formative-assessment process is that more and more educators accurately conceive of this process in the way it in which it has been *research-ratified*. If the formative-assessment process is used widely by teachers, then many more students will learn better and faster. If formative assessment is regarded as nothing more than a specific sort of test, then its impact is destined to be trifling.

How this important educational drama unfolds may depend, at least a bit, on the way we use our hyphens.

References

Arter, J. A. (2010). *Interim Benchmark Assessments: Are We Betting Our Eggs in the Right Basket?* National Council on Measurement in Education Annual Conference, Denver, CO, May 1.

Black, P., & William, D. (1998). Assessment and classroom learning. *Assessment in Education: Principles, Policy and Practice*, 5(1), 7-73.

Heritage, M. (2010). *Formative Assessment and Next-Generation Assessment Systems: Are We Losing an Opportunity?* Washington, D.C.: Council of Chief State School Officers, September 2010.

Popham, W. J. (2008) *Transformative Assessment*. Alexandria, VA: ASCD.

Popham, W. J. (2011) *Transformative Assessment in Action: An Inside Look at Applying the Process*. Alexandria, VA, ASCD.

Scriven, M. (1967). The methodology of evaluation. In R. W. Tyler, R. M. Gagne, and M. Scriven (Eds.), *Perspectives of Curriculum Evaluation*, Volume 1, 39-83, Chicago: Rand McNally.

William, D. (2007/2008). Changing classroom practice. *Educational Leadership*, Volume 65, No. 4, 36-24.