WHAT'S THE PROBLEM WITH A "RIGOROUS ACADEMIC CURRICULUM"?

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These days, calls for a "rigorous academic curriculum" or for "academic rigor" for all students prevail in school reform discourse. The mere implication that any students should not enjoy access to a rigorous academic curriculum is greeted as inequitable and unjust, even as a manifestation of "soft bigotry." It seems that a rigorous academic curriculum has become the current education reform orthodoxy in the United States.

But what, exactly, does the term *rigorous academic curriculum* mean? For when it comes to the education of children and youth, we should say what we mean and mean what we say. Let us subject the pervasive phrases *rigorous academic curriculum* and *academic rigor* to, if you will, a rigorous academic analysis. When we do, we find at least six problems with a *rigorous academic curriculum*, which together suggest that we set new terms for what we want students to experience and learn in school.

Some Context

During the past twenty-five years, in the United States proposals for curriculum reform have placed a premium on the traditional academic curriculum. From the excellence movement in the 1980s, to calls for stricter academic standards that emerged in the 1990s, to the accountability movement propelled by the *No Child Left Behind Act of 2001*, the traditional academic curriculum has stood unchallenged as the centerpiece of curriculum reform. In this environment, the terms *academic rigor* and *rigorous academic curriculum* have become commonplaces in the vocabulary of school reform. In conversations with educators and parents, these terms typically refer to academic work that is challenging or demanding, and that holds students to high expectations. It is not unusual to see these terms employed in vision and mission statements, often prominently and publically displayed on banners in school lobbies and gymnasiums.

The popularity of the terms *academic rigor* and *rigorous academic curriculum* has led some parties interested in school reform to attempt to refine and even redefine them. The ACT (2007), for example, asserted that *rigor* referred to "the quality and intensity . . . of the high school curriculum" (p. 2). Blackburn (2008) defined rigor as "creating an environment in which each student is expected to learn at high levels, each student is supported so he or she can learn at high levels, and each student demonstrates learning at high levels" (p. 16). Matusevich, O'Connor, and Hargett (2009) reported on an effort to redefine rigor for gifted education. Washor and Mojkowski (2006/2007) articulated a sophisticated and comprehensive conception of *rigor* that would foster the education of the whole child.

With such variation among commonplace uses and refined meanings attached to them, the terms *academic rigor* and *rigorous academic curriculum* can mean anything to anyone. If that is the case, then these terms lose precision and become, instead, hollow slogans uncritically repeated as the current glittering generalities of education policyspeak. In order to clarify what these terms mean, a reconsideration of the definitions of the terms *academic rigor* and *rigorous academic curriculum* is required.

For the purposes of clarity and consistency, the following discussion works with dictionary definitions. The fourth edition of *Webster's New World College Dictionary* defines *curriculum* as "a fixed series of studies" or "all of the courses offered, collectively, in a school, college, etc., or in a particular subject" (356). Curriculum theorists, however, conceive of

curriculum not only as the course of study in a school, but also as the course of students' studies, that is, as students' experiences in school. Although the definition of curriculum is still a matter of debate, for present purposes the conception of curriculum as the experiences students have under the auspices of the school suffices. The real problems lie in the other words in the phrases *rigorous academic curriculum* and *academic rigor*.

Multiple Meanings, Negative Connotations

The first two problems with the terms *academic rigor* and *rigorous academic curriculum* are that they contain multiple meanings and negative connotations. Four dictionaries are consulted here to establish definitions of these terms. According to *Webster's* (1235), *rigorous* can mean "very strict or harsh," "very severe or sharp," or "rigidly precise, thoroughly accurate or exact." The third edition of *The American Heritage College Dictionary* defines *rigorous* as "harsh" or as "rigidly accurate, precise" (1175). *Merriam-Webster's Dictionary and Thesaurus* defines *rigorous* as "accurate, close, delicate, exact, fine, mathematical, pinpoint, precise" and as "exacting, inflexible, rigid, strict, stringent, uncompromising" (698). And the fourth edition of the *Oxford Dictionary of Current English* defines rigorous as "very thorough or accurate," "strictly applied or followed," and "harsh or severe" (782).

According to *Webster's* (1235), *rigor* can mean "harshness or severity," "exactness in precision or accuracy," "a severe, harsh, or oppressive act," "stiffness, rigidity, a condition of rigidity in body tissues or organs in which there is no response to stimuli," and "a shivering or trembling, as in the chill preceding a fever." *The American Heritage College Dictionary* defines *rigor* as "strictness or severity, as in temperament, action or judgment," "a harsh or trying circumstance, hardship," "a harsh or cruel act," "shivering or trembling as caused by a chill," "a state of rigidity in living tissues or organs that prevents response to stimuli," and "stiffness or rigidity" (1175). *Merriam-Webster's Dictionary and Thesaurus* defines *rigor* as "the quality of being inflexible or unyielding, esp. in opinion or behavior," "a condition that makes life difficult, challenging, or uncomfortable," "a tremor caused by a chill," "strict precision," and "unnatural rigidity of a body part" (698). The *Oxford Dictionary of Current English* defines *rigor* as "the quality of being thorough or severe" and "demanding or extreme conditions" (782).

Summarizing from these four dictionaries, *rigorous* can be defined in three ways: 1) severe or harsh, 2) precise or accurate, and 3) rigid or inflexible. *Rigor* can be defined in five ways: 1) severity or harshness, 2) precision or exactness, 3) a cruel, harsh, or oppressive condition or circumstance, 4) shivering or trembling, and 5) rigidity in bodily tissues. Not only do these definitions denote different meanings, but most also describe experiences that we would not wish our children to have in school. It seems that definition 2 for *rigorous* and definition 2 for *rigor* are the only ones we would want to characterize students' school experiences. But those certainly are not the *only* types of experiences we would want schools to provide.

According to *Webster's*, the word *academic* can mean "of colleges, universities, etc.--scholastic, scholarly," "having to do with general or liberal rather than technical or vocational education," "of or belonging to an academy of scholars," "following fixed rules or conventions, pedantic or formalistic," or "merely theoretical, having no direct practical application" (7). The third edition of *The American Heritage College Dictionary* defines *academic* as "of, relating to, or characteristic of a school, esp. one of higher learning," "relating to studies that are liberal or classical," "relating to scholarly performance," "relating or belonging to a scholarly organization," "scholarly to the point of being unaware of the outside world," "based on formal

education," "formalistic or conventional," "theoretical or speculative," and "having no practical purpose or use" (7). *Merriam-Webster's Dictionary and Thesaurus* defines *academic* as "of, relating to, or associated with schools or colleges," "literary or general rather than technical," "theoretical rather than practical," and identifies "scholastic, bookish, pedantic and professorial" among its synonyms (5). The *Oxford Dictionary of Current English* defines *academic* as "relating to education or study," and "not related to a real situation, theoretical" (5).

Summarizing again from these four dictionaries, *academic* can be defined in four ways: 1) relating to school or college, 2) liberal versus technical, 3) formalistic or conventional, and 4) theoretical and unrelated to the real world. Definition 1 is so general so as to provide little direction and definitions 2, 3, and 4 leave us with a very narrow conception of what we want students to learn in school, so narrow that it may not even relate to life outside of school.

The word *academic* becomes more problematic when we consider some of the words used to define it. According to *Webster's*, *scholastic* means "pedantic, dogmatic, formal" (1283). And *pedantic* describes "a person who puts unnecessary stress on minor or trivial points of learning, displaying a scholarship lacking in judgment or sense of proportion," or "a narrow-minded teacher who insists on exact adherence to an arbitrary set of rules" (1061). Clearly, this is not what we want for students. Hopefully, this is not what the term *rigorous academic curriculum* is intended to invoke and not what students experience in school.

Given the multiple meanings and negative connotations of the phrases *rigorous academic curriculum* and *academic rigor*, why are these terms so commonly employed to describe the ideal education for all students?

Survival From Discredited Learning Theory

The use of the words *rigor* and *rigorous* in connection with the academic curriculum is probably a survival from the learning theory called mental discipline. Widely accepted during the nineteenth century and earlier, the theory of mental discipline held in part that the mind was like a muscle in that it could be strengthened through strenuous—that is, rigorous—exercise. The thinking was that the more severe the academic experience with any subject, the more it strengthened the mind. Put simply, the belief was, the harder the subject came, the smarter the student became.

The problem with the theory of mental discipline is that about a hundred years ago educational psychologists discredited it. Researchers found insufficient evidence to support the claim that the more "rigorous" subjects, such as Latin and trigonometry, made students significantly smarter than did less rigorous subjects, such as cooking and stenography (Thorndike, 1924). In our era that values scientific research, it makes no sense to use language that evokes a theory of learning that was discredited by scientific research nearly a century ago.

Status Over Substance

Despite the negative connotations of the word *academic*, there is a tendency in American society to associate academic things with high status. This tendency is perhaps odd in a democratic republic like the United States, because the traditional academic curriculum is an artifact of aristocratic forms of education in Europe. The educational status hierarchy in which academic subjects lord over vocational subjects dates at least to ancient Athens, where free (male) citizens pursued, as Aristotle's translator put it, "liberal" intellectual studies, while slaves

performed "illiberal" manual work (Jowett, 1885, 245). Subsequently, an academic or liberal education was the privilege of the sons of the aristocracy, of the leisure class. Perhaps continued infatuation with the academic curriculum in the United States can be explained by the fact that the academic credential provides its bearer a status marker that is otherwise unobtainable in our relatively classless society--from, say, family lineage. In the United States, the academic credential can be understood as providing a kind of "mass class," much like owning certain Swiss wristwatches or German automobiles.

This is not to say that academic subject matter has no value. Because academic subjects were invented to explain the natural world and human experience, they potentially can have a profound impact on how students understand and experience the world. But that is not how students typically experience the academic curriculum. They usually experience it as whole class instruction comprised predominantly of teacher talk interspersed with student recitation of facts and completion of dry textbook exercises (Cuban, 1993). Preoccupation with rote memorization of information commonly trumps opportunities to use subject matter to make sense of the world. That is, students typically experience the academic curriculum consistent with definitions 3 and 4 of *academic* and the first definition of *pedantic*, above.

An open secret

Interestingly, the limitations of the academic curriculum have been an open secret for a long time. In 1844, Ralph Waldo Emerson, for example, whose work often is a topic in today's academic curriculum, described the formalistic academic curriculum this way: "We are students of words: we are shut up in schools, and colleges, and recitation-rooms, for ten or fifteen years, and come out at last with a bag of wind, a memory of words, and do not know a thing" (Emerson, 1969, 114). Yale professor Henry Canby described his experience in the 1890s similarly: "We went to school for facts and got them. Facts about Latin, facts about history, facts about algebra, which gave us valuable experience in taking intellectual punishment without a quaver. But of education there was very little . . ." (quoted in Tyack, 1967, 357-58).

These kinds of academic experiences compel even accomplished academics to speak against the formalistic academic curriculum. Albert Einstein (1956), for example, suggested: "Sometimes one sees in the school simply the instrument for transferring a certain maximum quantity of knowledge to the growing generation. But that is not right. Knowledge is dead; the school however, serves the living" (32). Einstein held that, rather, "the aim must be the training of independently acting and thinking individuals" (32).

The testing that usually accompanies a rigorous academic curriculum has also been the object of criticism from accomplished academics. Jerrold Zacharias, experimental physicist and noted leader of the post-Sputnik National Science Foundation curriculum projects, criticized standardized testing for repressing students' creativity and curiosity about science. Zacharias (1975, 43) referred to standardized testing as the education system's "enforcement agency." He wrote: "Uniformity and rigidity require enforcement, so I have chosen a most denigrating title for the enforcement agency. Its hallmark is arbitrariness, secrecy, intolerance, and cruelty." He called standardized testing "the Gestapo of educational systems" (43). Zacharias's characterization of standardized testing suits most of the definitions of *rigor*.

More of the same

Despite such concerns about the academic curriculum, during the twentieth century, it dominated school classrooms in the United States (Cuban, 1993). As noted above, beginning in the 1980s, the academic excellence movement, which essentially called for more of the same in classrooms, led to the standards and accountability movements currently in force. By 2004, high school graduates in the United States completed about 19 percent more Carnegie units in academic subjects than graduates had completed in 1982 (NCES, 2007). The proliferation of high stakes testing has further academicized the school experience, reducing schooling from learning subject matter for its own sake, to learning subject matter for the sake of passing exams.

Unfortunately, evidence has emerged that, since the beginning of the academic excellence movement, student attitudes toward the school curriculum have deteriorated significantly. For several decades the Survey Research Center at the University of Michigan's Institute for Social Research (NCES 2004; Johnston, et al. 2005) has surveyed the attitudes of high school seniors. When asked in 1983 "how important school learning will be later in life," 50.5 percent of seniors surveyed replied "quite or very important" and 19.9 percent replied "not or slightly important." In 2005, the proportion of high school seniors who responded "quite or very important" fell to 37.1 percent and the proportion who responded "not or slightly important" climbed to 28.8 percent. High school graduates increasingly perceive their academic experience to be of the theoretical-and-unrelated-to-the-real-world sort. As calls for a rigorous academic curriculum have been answered in the form of increased academic course taking and increased standardized testing, high school students have come to view their school experience as did Emerson, Canby, and Einstein.

In summary, the terms *rigorous academic curriculum* and *academic rigor* persist in educational parlance in part because *rigor* survives from the theory of mental discipline and in part because *academic* is associated with status and prestige. Yet, important opinion and evidence indicates that so-called academic experiences often are anything but educational.

Over-narrow Conception of Curriculum

Let us return to our definitions. Granted, if we choose carefully from the various definitions of *rigorous* and *academic*, we can devise a reasonably acceptable conception of a curriculum that is 'rigidly precise, thoroughly accurate or exact' and has 'to do with general or liberal education.' As suggested above, however, this is an overly narrow conception of curriculum. By definition it includes only academic subjects and it emphasizes only exacting study of them. It omits non-academic subjects, such as vocational-technical courses and the fine and performing arts, as well as the application of academic subject matter to understanding the world beyond the school. Is such a constricted curriculum, one that does not reflect the range of talents and capacities necessary for a society to function, in the best interests of students? Of society?

Imprecise Terms

Moreover, because most of the definitions of these two words bear negative connotations, when we say *rigorous academic curriculum* we could be understood to mean something like a 'severe, harsh and oppressive act of scholastic formalism having no direct application beyond the

academic setting.' The phrase *rigorous academic curriculum* does not even measure up to the single positive definition of *rigor*: because both *rigor* and *academic* have multiple definitions, the term *academic rigor* does not obtain the precision or exactness that the word *rigor* can denote. In short, because of the multiple definitions and the negative connotations it contains, the term *rigorous academic curriculum* is not an academically rigorous term.

Setting New Terms for What We Want for Students

Given the problematic definitions of the terms *rigorous academic curriculum* and *academic rigor*, rather than attempting to refine or redefine them, perhaps a more precise choice of wording is in order, one that better defines what we want for students. We need a term that accurately denotes the kind of experiences we want students to have without the negative connotations of the words *rigorous* and *academic*. We would do well, then, to shift our thinking and teaching away from the inexact and potentially miseducative notion of a rigorous academic curriculum and toward the ideal of a *vigorous educative curriculum*.

The four dictionaries consulted provide consistent definitions of these words; *Webster's* is representative. According to *Webster's*, the word *vigorous* means "living or growing with full vital strength, strong, robust," "of, characterized by, or requiring vigor or strength," "forceful or powerful, strong, energetic," or "acting or ready to act, with energy and force" (1594). The word *vigor* means "active physical or mental force or strength," "active or healthy growth," "intensity, force, or energy," or "effective legal or binding force" (1594). With the sole exception of the fourth definition for *vigor*, these definitions are more consistently positive than the definitions of *rigor* and *rigorous*.

Webster's defines the word *educative* as "educating or tending to educate, instructive," or "of education, educational" (453). These definitions refer to the basic function of schools and can accommodate a wider range of human talents and capacities than the word *academic* encompasses.

Because the definitions of the words *vigorous educative curriculum* are consistent and bear no negative connotations, they comprise a more precise—a more academically rigorous—term than the currently popular but problematic phrases. The term *vigorous educative curriculum* denotes an education that fosters 'active, healthy growth' for 'active mental strength' and 'readiness for energetic action.' A *vigorous educative curriculum* would prepare students to be able and ready to use subject knowledge to understand the natural world and human experience. It would embrace a broad curriculum inclusive of the range of capacities and talents necessary for a functioning society, including the knowledge and abilities deposited in the social sciences, the humanities, the sciences and mathematics, the fine arts, the performing arts, and the trades and technical occupations. Rather than simply requiring students to master subject matter, a *vigorous educative curriculum* would enable and empower students to marshal knowledge and skills to make sense of and to act in and upon the world.

What's in Some Words?

An academic analysis of the ubiquitous but taken-for-granted term *rigorous academic curriculum* reveals that by definition it is not an academically rigorous term. It is associated with a discredited learning theory and in practice tends to function more as a status marker than as a substantive educational experience. The multiple meanings, negative connotations, and

constricted conception of curriculum in the term *rigorous academic curriculum* make it unsuitable for describing what we want students to experience in school. Of course, savvy educators interpret such buzzwords in ways that are in the educational interests of students. But this discussion is no mere academic exercise in the narrow, impractical sense of the term. Clarifying the way we think about the best curriculum for all students can enhance our operating ideal of education and enable us better to enact that ideal in practice. We should embrace a broad conception of curriculum that envisions an education that fosters growth, energy, and action. We should provide opportunities for our students to experience a *vigorous educative curriculum*.

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