INAPPROPRIATE CONTEXTS FOR TESTING
WHICH, HOWEVER, MIGHT BE GREAT FOR TEACHING

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Consider the various data connected with the game of baseball. The interest of a student in baseball can be connected with various central ideas in the state mathematics standards for Grades 5-7. Thus the context of baseball can be a very useful pedagogical device. But it should not be a requirement for passing through Grades 5-7 that students be interested in baseball. And for students uninterested in baseball, tying baseball to mathematics gives them more to learn. For instance, in calculating batting averages the number of hits that appears in the numerator does not account for all times that the ball is hit and the denominator which is the number of at-bats does not account for all the times that the batter takes his turn batting. And occasionally a sports announcer will speak of a winning percentage of 558 when he should call it a winning percentage of 55.8. The specialized knowledge relevant to understanding baseball can actually help some students learn mathematics, but at the same time it can be a road block for others. And if baseball questions are used on tests, one is creating an unintentional cultural bias.

It is extremely important that the state guard against the appearance of problems on MCA’s that are confusing to some students because of their lack of interest in certain non-mathematical topics which are not regarded as central to a good education. Lack of care in this matter can lead to spurious difficulties for various students, especially those for whom English is a yet-to-be-mastered second language.

I do not mean to imply that there should be no MCA problems in real-world contexts. For instance, compound interest should be part of high school education for all, and it provides a variety of problems involving laws of exponents. And there are many examples involving rates of change; speed as the rate at which distance changes with respect to time is one such example.

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