

Re: A misapplication of probability theory in exam grading

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- *From:* matt271829-news@xxxxxxxxxxxx
 - *Date:* 15 Dec 2006 13:12:39 -0800
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pauldepstein@xxxxxxx wrote:

jankrihau@xxxxxxxxxxxx wrote:

...

Hi,

I don't think it was an attempt to remove randomness, but rather to arrange so that random guessing doesn't score better than not answering. Hence the choice of (-1, 4): It gives the expected value 0 for random guessing. Although there is still an element of randomness, the expected score for the whole test becomes 4 x the number of questions the candidate actually knew the answer to, regardless of whether he or she made random guesses or chose to leave some questions unanswered.

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If you want the expected score of random guessers to be 0, you don't need to fuss with silly rule changes in this way. You can just use the normal system and then do a final subtraction of (number of questions)/5.

I don't know why you use the tentative formulation "still an element" of randomness.

My whole point is that the penalty system (when used optimally by students) has exactly the same degree of randomness as the more traditional no-penalty system.

The penalty-system was introduced with a completely dishonest and fallacious propaganda campaign that the new system is "fairer" and removes some randomness. It does absolutely nothing of the kind.

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It's probably because subtracting points from the total score confuses people more than giving negative scores for incorrect answers. For example, let's say there are ten questions. In the first case, one point is awarded for a correct answer, zero for an incorrect answer, and then two points are subtracted from the total score. This raises the obvious question in the sitter's mind: "why on earth are two points being subtracted?" The other option – four points for a correct answer, one point deducted for incorrect – probably makes more sense to most people, without the need of any complicated explanation.