Seek Whence: Answer Sequences and Their Consequences in Key-Balanced Multiple-Choice Tests

Maya Bar-Hillel & Yigal Attali
The Hebrew University of Jerusalem
&
National Institute for Testing and Evaluation (NITE)

Abstract

The professional producers of such wide-spread high-stakes tests as the SAT have a policy of balancing, rather than randomizing, the answer keys of their tests. Randomization yields answer keys that are, on average, balanced, whereas a policy of deliberate balancing assures this desirable feature not just on average, but in every test. This policy is a well-kept trade secret, and apparently has been successfully kept as such, since there is no evidence of any awareness on the part of test takers and the coaches that serve them that this is an exploitable feature of answer keys. However, balancing leaves an identifiable signature on answer keys, thus not only jeopardizing the secret, but also creating the opportunity for its exploitation. The present paper presents the evidence for key balancing, the traces this practice leaves in answer keys, and the ways in which testwise test takers can exploit them. We estimate that such test takers can add between 10 and 16 points to their final SAT score, on average, depending on their knowledge level. The secret now being out of the closet, the time has come for test makers to do the right thing, namely to randomize, not balance, their answer keys.