
Title	On the SAT
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Soh Kay Cheng on the SAT

Soh Kay Cheng has sat on many chairs in his professional life — textbook development officer, lecturer in the Teachers Training College, Principal of the Nanyang Academy of Fine Arts (NAFA) and currently senior fellow in the National Institute of Education (NAIE). He was with NAFA from 1994 to 1976, charged with the job of restructuring and promoting the professional development of the Academy. That done gong cheng, shen tui (job done, withdraw) as Laozi advised, Dr Soh decided to return to academic life which he enjoys most. On the suggestion of Prof Leo Tan, Director of the National Institute of Education, he returned to academia because he was persuaded that the Masters programme needed his experience in research methodologies and statistical analysis. Asked about his interest in the SAT, he said that the identification of the right kind of students for university programmes would definitely have an important impact on Singapore's future in a vastly changing world. Mis-identification means loss of human resources and a small nation like Singapore cannot afford it. As someone trained in psycho-educational measurement, he naturally takes a keen interest in the SAT.

The recommendation of the Committee on University Admission System to use the Scholastic Assessment Test 1 (SAT 1) has generated much public interest and concern. As a test specialist, what is your view?

The use of the SAT 1 will probably benefit Singapore in several ways. First of all, it enables Singapore to pitch itself against a long-established international standard, allowing the world and ourselves to assess the quality of our university students. This is an important and necessary step to take since we aspire to have world-class universities.

What do you see as the major difference between using 'A' level results alone and using SAT 1 in addition?

It prevents the hazard of a single indicator by taking into account learning that might have taken place beyond the circumscribed examinations. Learning and achievement are multi-faceted. It takes more than remembering the correct facts and applying the correct formulae. We have been over-reliant on a single examination result for

assessing our students. The use of SAT 1 moves us away from this straitjacket. It allows us to consider other talents which may be more important than being exam-smart.

Do you see the use of SAT 1 as a step forward in our assessment system?

Yes, definitely. I have been lamenting that while examinations play such an important role in our education, we do not use standardized tests for assessment, relying so much on tradition and common sense. The use of SAT 1 signifies that we are moving into a psychometric approach to assessment that is more scientific. This is a very important first step toward a reformed assessment system.

In what way do you think this will affect teaching and learning at the school level?

Any change at the university level is going to have an effect on levels below. This is true in other countries and Singapore is no exception. Since the SAT 1 tests areas beyond the school curriculum, a ripple effect is that it will motivate our students and teachers to go beyond the usual school texts and tests, leading to more open learning and wider reading. And, since assessment goes hand in hand with teaching and learning, I foresee a change in assessment modes at the school level that are more consistent with a scientific approach.

You have mentioned several advantages of using SAT 1. Is there not anything we should be cautious about? And, what should we do?

Yes, of course. There are some psychometric issues we need not go into here. But I would like to mention two points worth pondering. Firstly, the SAT is a norm-referenced test and the scores do not indicate content mastery; the scores are useful for comparing students' relative standings. A perfect score on SAT 1 does not mean a student has learned all there is to learn; it simply means he has out-performed almost all the others who have taken the same test.

Secondly, we need to guard against spurious precision. Spurious precision is a precision that does not really exist in the measurement but we imagine it does. For instance, a student scoring some 10 points more than another may give the impression that he is more capable. But this can come about because of a difference of only one item. This being the case, we need to take into account the standard error of measurement (SEM) when interpreting a score, seeing it as a point on

a band of possible scores within given limits, rather than taking the score literally as a fixed point on a scale. ETS, the developer of SAT 1, uses a 500+100 scale to avoid the traditional and misleading 100% (perfect) scale. In so doing, it brings in a different interpretation problem, that of spurious precision. The only way to get around this problem is to educate the test users — students, teachers, parents, and administrators alike.



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