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High-Stakes Assessment in England and Singapore

Recent trends in federal and state testing policies have close parallels with policies enacted in England during the 1990s. However, rather than looking toward England for lessons learned, U.S. policy makers have tended to focus on the testing policies and practices of internationally high-performing Asian countries, especially Singapore. This article presents an overview of the English and Singaporean education systems, paying special attention to the high-stakes assessment systems operating at the elementary level in both countries. The effects of these assessments on teachers and students are described and implications for U.S. educators outlined.

AT ITS MOST GENERAL, assessment can be defined as the process of collecting, synthesizing, and interpreting information to aid decision making (William, 1998). High-stakes assessments are those used to make significant educational decisions about students, teachers, schools, or school districts (Heubert, 2000). High-stakes assessment may consist of a single measure, such as a paper-and-pencil test, or multiple measures, including portfolios, projects, and written test results.

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Whatever the format or the number of these measures, high-stakes assessments have a long history. For example, as early as 165 B.C., China had instituted a system for selecting government officials based on recommendations and examinations (Yan & Chow, 2002). Since that time there has been considerable growth in both the use and types of high-stakes assessments in education systems.

This article describes some of the high-stakes assessment practices, and the effects of those practices, in two countries, England and Singapore. England was chosen because it implemented a national testing program in the early 1990s designed to address many of the concerns expressed in the United States by the Bush Administration in the early 2000s. Singapore was selected because of continuing U.S. interest in its educational practices. Noting that Singaporean students score among the highest in the world in mathematics and science, U.S. Secretary of Education Rod Paige has stated that there is much to learn about Singapore's system of education (Hoff, 2002). Each section begins with a brief overview of the dominant forces shaping education in that country, then describes the assessments currently being used and outlines some of their effects on teachers and students. Drawing upon lessons learned in these and other countries, the final section of this article presents three broad points of interest to U.S. educators.

The English Education System and High-Stakes Assessment

Prior to the 1980s, control of the English education system was largely devolved to Local Education Authorities, and child-centered, humanitarian approaches to education dominated. Curriculum development, implementation, and evaluation were, for the most part, school based. Concern about the quality and standard of education, promoted by some sensational media reporting throughout the 1970s, raised questions about the school curriculum, accountability of teachers, and the assessment of the effectiveness of education (Flude & Hammer, 1990). Blaming falling educational standards, the wide variation in quality between different schools, and the general decline of social and personal behavior upon progressive teaching methods, the Thatcher government started a series of education reforms in 1979 that were aimed, in part, at controlling and directing teachers (Pring, 1995). These reforms culminated in the Education Reform Act of 1988, which established the National Curriculum and arranged for the testing of students and the publication of league tables comparing school performances.

Since the Thatcher era, successive administrations have maintained these high-stakes assessment systems for a variety of political reasons, not the least of which is the need to appease the business community. The current Labour Government has reaffirmed that raising educational standards continues to be a main priority and has expressed a strong desire that all children should leave school with the knowledge and skills to succeed in the world of work (Morris, 2002). The government requires all schools to have high expectations and to set high standards for all students, regardless of their background.

High-stakes assessments

Most children in England attend non-fee-paying schools that are funded by the national government. School is compulsory from age 5 through age 16, and students within the non-fee-paying school system are taught the National Curriculum. The National Curriculum determines the content that will be taught and sets attainment targets for learning. It also describes how performance will be assessed and reported.

All students in non-fee-paying schools are tested in English and mathematics at the ages of 7, 11, and 14; students are tested in science at ages 11 and 14. The tests, known as the Standard Attainment Tasks and Tests (SATs), are intended to show whether students have reached the National Curriculum learning targets. At age 16, students sit for the General Certificates of Secondary Education (GCSE), taking examinations in the core subjects of English, mathematics, and science and a range of elective subjects. Students who pass these examinations may choose to continue their education by preparing for other examinations, such as A-levels or The National Council for Vocational Qualifications. Students who fail the GCSE examinations may stay on at school to repeat the examinations the following year. The remainder of this section focuses primarily on the SATs because they are similar, in intent and practice, to the assessments mandated in the United States by the No Child Left Behind Act of 2001.

The league tables

At least once a year, schools must give parents a written report describing how their child is doing in each National Curriculum subject. If a child is in a year that has the SATs, the report will also include the child's SATs results. The SATs results are also published, through the print media and the Internet, in "league tables," which show the average SATs results in all schools nationally. The league tables rank schools according to examination results. The tables do not take into account contextual factors, such as social and economic circumstances, nor do they factor in the special needs of the student population. The tables give high weighting to academic attainment on the performance tasks, but exclude other educational outcomes, such as personal fulfillment, moral development, or social skill attainment (Adnett & Davies, 2001).

The consequences for students of the National Curriculum assessments conducted in elementary schools are limited, but they are highly significant for schools, Local Education Authorities, and the government. Publishing raw school-level results places schools in a marketplace environment, with each trying to attract more able students. As one incentive

to encourage higher school achievement on these tests, parents are relatively free to move their children from one school to another, providing the schools are willing to accept their children. There is some evidence that schools attempt to control their student intake, selecting the more able students ahead of those with learning difficulties in order to raise or maintain test scores. This has a tendency to “reinforce local schooling hierarchies and increase differences in the mean pupils’ academic attainment between schools” (Adnett & Davies, 2001, p. 1). Because local schools are now in competition for the more able students, mutually beneficial cooperation between schools is diminished, wasteful duplication is increased, and the speed of dissemination of best practice is slowed (Adnett & Davies, 2001).

When first instituted, the league tables were subject to much criticism from groups within the educational community, and many educators continue to draw attention to their limitations. For example, the rankings are based on a cohort (i.e., peer group) that is finishing a segment of schooling, and this cohort may be different in many ways from that starting the segment (Goldstein & Myers, 1996). In addition, even if external factors are taken into account, a great deal of uncertainty in the ranking of the schools still remains (Goldstein & Spiegelhalter, 1996).

Influence on teachers

One positive effect of the National Curriculum and its assessments is that teachers and students in England have a clearer conception of the performance standard expected at each stage of education compared to pre-National Curriculum days (Hargreaves, 2002). Yet the role of the SATs and other examinations in directing the future education of the student is limited. The SATs examinations, like other English examinations, take place toward the end of the school year. Consequently, teachers can use the results to modify instruction for the *next* school year, but can make little use of the results for adjusting instruction for the current year or for current students. However, the Department for Education and Skills produces a number of documents specifically targeted at helping teachers and schools analyze the results of the SATs.

Its annual “Autumn Package for Pupil Performance Information,” provides tables with the percentage of students nationally (overall and by gender) reaching reading, writing, and mathematics benchmarks, provides a column in which to enter the school’s results, and another to calculate the difference in percentage points (Department for Education and Skills, 2001). The department has also developed a “Five Stage Cycle for School Improvement” program to enable educators to review SATs data for evaluation, target setting, planning, and monitoring. Fundamental to the cycle are three questions: How well are we doing? How do we compare with similar schools? and What more should we aim to achieve? Within each of the five stages, there are roles for team and subject leaders and for classroom teachers, in general agreement with a hierarchical management structure.

Not surprisingly, the questions posed by the department focus on student SATs achievement and what can be done to raise that achievement. They do not ask questions about the suitability of the National Curriculum for the school’s students, the validity and reliability of the assessment, the educational value of the assessment, the validity of comparing different classes or schools, and so on. The lack of questions that explore the implicit philosophical underpinnings, learning theories, and curriculum implications of the assessment severely limits the opportunities for teachers to participate as critical professionals, and offers no opportunity for those closest to the SATs to provide feedback to policy makers. Consequently, teachers are, in effect, treated as skilled technicians.

There is some evidence of a scapegoat effect in the government’s handling of criticisms of its educational policies. Typically, the government defends its testing policies by deflecting blame for problems toward schools, teachers, or parents. For example, one of the checks used to establish that a high-stakes test is performing as expected is to compare the results it gives with results from another test that has significant conceptual overlap. When results from the reading ability and writing skill tests for 11-year-olds showed a marked gap, a spokesman for the National Primary Heads Association challenged the results, claiming that there were obvious errors in marking the writing test

(BBC News, 2000b). However, the Office for Standards in Education (OFSTED), a government department responsible for inspection of schools and Local Education Authorities, investigated the issue and concluded that there was not a problem with the test, but that more attention should be given to training teachers to teach writing effectively. This conclusion was arrived at despite the fact that a review of the writing test papers in one school resulted in an overall 23% increase in the average test score.

Observing that rising test scores demonstrate little more than teachers' increasing abilities to teach to tests, the limited reliability of educational assessments, and the increased narrowing of the curriculum as teachers teach to the test, William (2001) noted that the "level of assessment illiteracy by successive governments is appalling" (p. 1).

Influence on students

Although the SATs have few consequences for students in terms of grade promotion, the tests serve as very public and powerful labeling tools. Given that comparisons are made, and that a school's status depends on how each student performs, it is not surprising that some students feel stressed by the assessments. However, the Qualifications and Curriculum Authority (QCA), the group within the department of education overseeing assessment, says that "seven-year-olds are not supposed to understand that they are being tested" (BBC News, 2001). Literature published by the QCA (2002) contains the following information for the parents of children taking the SATs:

Are the tests stressful for children? The tests only cover what children have been taught at school. Everyone involved in the tests takes great care to make sure that they are not stressful and are as fair as possible to all children. (p. 2)

While the QCA's answer does not address its own question, it does suggest that teachers are responsible for making the tests relatively stress-free. Childline is a British telephone help service for children. In 1999, it received about 800 calls pertaining to examination stress, nearly 15% of them from children under age 13 (Carver, 2000). Responding to accusations that the SATs were indeed stressing children, Kenneth Clarke, the man

who introduced the present regime of school tests, claimed that primary students are only stressed by the examinations because of "over-concerned adults" (BBC News, 2000a).

An English student starting school at age 5 and leaving school at age 17 or 18 will have completed a minimum of 75 external assessments, tests, and examinations (Carver, 2000). There have been calls for the government to "drop its obsession with test results and recognize that there is much more to education and learning than striving to boost test scores to meet arbitrary targets" (Goldstein, 2001). There are signs that the English assessment system is going to undergo significant changes in the near future. Dr. Ken Boston, new chief executive of the QCA, has stated that the "testing system needs overhauling—with teachers being trusted to do more assessment themselves" (BBC News, 2002). Such a change is likely to take place shortly; since its introduction, the National Curriculum and its allied assessments have undergone significant changes at least every two years.

While the English education system has undergone many changes since World War II, its former colony, Singapore, has remained on a steady path that has its roots in the English system. Until the late 1960s, England had end-of-primary examinations used for the placement of students into streamed secondary schools. The English secondary schools were differentiated by those geared toward preparing students for college education, and those preparing students for technical careers. Singapore has similar structures in place today. The difference between England and Singapore stems, in part, from England's experiment with the devolution of power to schools throughout the 1960s and 1970s. At that time, Singapore's government was consolidating its control over education.

The Singaporean Education System and High-Stakes Assessment

Singapore's constitution provides for a parliamentary democracy similar to Britain's (Tay, 1996). Since 1959, the small island-nation has been ruled by the People's Action Party (PAP). The Singaporean government seeks to maintain the leadership status of its elected officials, and criticisms that call into question this leadership are discouraged

(Jeyaretnam, 2002). Responsibility for education lies primarily with the Minister of Education, and most Singaporean schools are public schools under his control.

High-stakes assessments

Singapore has consistently performed well in international comparative assessments (Martin et al., 2000; Mullis et al., 2000). Much of this success can be attributed to the leadership of Lee Kuan Yuan, the first Singaporean PAP prime minister, as well as later prime ministers and ministers of education. Shortly after independence from Britain, the government decided that the national good would best be served by a primary education that would instill a love of Singapore, while secondary and tertiary sectors would be planned in terms of projected economic growth and manpower requirements. These fundamental beliefs still shape Singaporean education today (*The Straits Times*, 2001). The education system is ability-driven, aimed at maximizing the development of each child within well-defined areas.

Singaporeans place a great deal of emphasis on education. As one way of enforcing this importance, the Singaporean government imposes a punitive tax on foreign companies with a high proportion of low-skilled workers (Woolridge, 1993). Not surprisingly, private sector demands for educated workers is high, helping to ensure the continued valuation of education.

Examinations are the gatekeepers to educational opportunities throughout the Singaporean education system. At the end of primary education, students are formally streamed according to their learning ability when they take the Primary School Leaving Examinations (PSLE). These examinations assess students' abilities in a range of subjects including English, mathematics, science, social studies, and the child's mother tongue. Based on the results, students are subsequently placed into one of four secondary school streams that are designed to suit their learning pace and aptitude (Ministry of Education, 2002a). Students in the top two streams study for General Certificate of Education Ordinary, or O-level, examinations that are taken at the end of the fourth year of secondary school. Students in the bottom two streams study for Graduate Certificate of Education Normal, or N-level,

examinations at the end of the fourth year of secondary school. Those students in the bottom two streams who are deemed competent by the teachers go on to sit for the O-level examination at the end of the fifth year of secondary school (Ministry of Education, 2001). Students who do well enough at secondary school can apply to go to a junior college for a two-year preuniversity course, or to a centralized institute for a three-year preuniversity course. At the end of the preuniversity course, students sit for A-level examinations.

School performance tables

Each year the Ministry of Education publishes information about the performance of secondary schools to help primary students and their parents make informed choices when opting for secondary schools (Ministry of Education, 2001). The Ministry ranks the top 50 schools in categories of absolute performance on the O-level examinations, value-added performance on O-level examinations based upon PSLE results, and physical fitness (including lowest percentage of overweight students). Other awards include sustained achievement awards (i.e., giving recognition to schools that have performed well consistently over a period of years) and best practice awards given to schools in recognition of effective practices and systems that lead to desirable educational outcomes (e.g., organizational effectiveness, student all-round development, staff well-being, and teaching and learning). The Singaporean government reports that since instituting the ranking of schools, standards have risen and parents are able to make a more informed choice, especially as to which are value-added schools (Ministry of Education, 2002b).

Influence on teachers

While criticism of teachers by the media and politicians is somewhat common in England, this is rarely the case in Singapore. Education is highly valued in Singapore, and teachers are seen to be of vital importance to the nation as a whole and to the individual student. Teaching is recognized as a career with unique opportunities and satisfying experiences. The Ministry of Education (2002b) challenges people to be part of a "dynamic teaching fraternity responsible for molding the future of the nation" (p. 1).

One advantage of the Singaporean education system is that innovations can be implemented with considerable speed. In a 1998 report, the Singaporean Ministry of Trade and Industry argued that to “improve the longer term competitiveness of Singapore, we should refine our education system to help foster creative thinking and entrepreneurial spirit among the young” (p. 86). While maintaining high standards, the Ministry of Education is now actively encouraging teachers to expand their repertoire of teaching and learning strategies to include new and innovative pedagogy that will help students become enterprising team workers who are able to communicate effectively, collaborate widely, and solve problems (*The Straits Times*, 1997). This is being accomplished by the allocation of significant resources toward retraining teachers, by modifying the curriculum, and by rotating teachers in and out of the Ministerial headquarters. Teachers who work in the Ministry are expected to re-enter schools and serve as instructional leaders.

Influence on students

Because the gateway to each level of education is guarded by examinations, the rewards for success and the penalties for failure in those examinations are substantial (Bray, 1999). The Singaporean education system is intensely competitive. Only a small percentage of students are selected for the top stream in the education system, and an even smaller percentage make it into Singapore’s university education system. Exposing students to high-stakes assessments in which there must be winners and losers, in a compulsory education system in which the students have effectively no control or voice, is likely to produce detrimental effects.

One in three primary Singaporean children finds life not worth living; nearly four out of five spend as many as three hours studying after school; and seven out of ten receive extra classes after school (*The Straits Times*, 2000). A 1992 survey of 1,052 Singaporean households, together with interviews with 1,261 students, found that 49% of elementary students and 30% of secondary students received tutoring (George, 1992). Students frequently complain about the lack of time to play

(Tan, 2001). And two-thirds of Singaporean parents have punished their children for performing poorly by caning them (Agence France Presse, 2000). More than 20,000 students, two-thirds of them in primary schools or preprimary centers, received psychiatric treatment in 1998 (Agence France Presse, 2001). Given the intense pressure students are under, combined with little avenue for escape, a number of students commit suicide each year. For example:

Lysher Loh left her home in Singapore early one day but never made it to school. The 10-year-old, a top student with a cheerful personality, had confided in her father about pressure from mounds of homework and joked with classmates about what she would do if her Chinese-language grades did not improve. . . . Lysher went up to the fifth floor of her apartment block and leapt to the pavement below. (Tan, 2001, pp. 1-2)

Yet, the suicide and self-inflicted injury death rate for the 5-14 age bracket in Singapore is similar to that of the United States. For the 15-24 age bracket, the male rate of suicide in Singapore is less than half of the United States, but the female rate is approximately twice that of the United States (World Health Organization, 1999). In order to head off incidents like that of Lysher Loh, schools in Singapore get suicide-intervention guides from the Ministry of Education.

Potential Lessons for Educators in the United States

The national curricula in England and Singapore give specific direction to education. In these two countries, the curriculum is normalizing, conveying a value-laden message regarding what should be taught and assessed and, by default, what is of limited value. Through the accompanying high-stakes assessments, this normalization is taxonomic, classifying people and schools according to specific, often narrow, criteria. Problems associated with such curricula include a narrow operational definition of education, an unhealthy focus on test results rather than learning, and detrimental stress on the student. Because these problems are often manifested at the classroom level, they remain relatively hidden from centralized policy makers. Consequently, educators have a role in the educational process that extends beyond implementing the curriculum. That is, they must participate in

the formulation and critical review of education policy. Three broad ideas specially aimed at enabling educators to participate in the policy process are presented below.

Establish credibility

In the face of continued media, political, and public scrutiny, educators must establish and reaffirm their credibility. Each educator must develop, and continue to refine, a comprehensive and cohesive framework that relates theory to practice. Such development will initially occur within the constraints of a normalizing curriculum that exerts power over the education process (Koutselini, 1997).

Drawing on the work of Carr and Kemmis (1986), three essential types of professional development are needed. First, the teacher must develop a wider range of educational skills, including teaching strategies and assessment techniques. These skills are necessary to fundamentally demonstrate a basic, technical expertise demanded of and by the teaching profession. Second, the teacher must develop a fuller understanding of the students. This deeper understanding of the situational context of the students, their needs, and aspirations allows the educator to assume more of a facilitator role, enabling all learners to proceed at an optimal rate. Third, the teacher must critically examine the educational, social, cultural, economic, and political understandings that underpin his or her practice and the practice of others and the education system as a whole. Enhanced through conversations with other educators and education stakeholders, this critical examination should lead to new understandings that will shape education. This third type of professional development, which subsumes the first two, is the one that is most likely to question the normalizing curriculum and to offer plausible and, ultimately, effective alternatives.

Engage the assessment system

Policy makers have consistently turned to external assessments to facilitate educational reform. Professional educators must be able to engage whatever assessment systems are to be implemented, identifying each one's strengths and weaknesses. Through such engagement, and with prior established credibility, educators will be able

to suggest alternatives that better suit the United States education system and its goals. For example, one possible alternative can be found in France.

Since 1989, France has administered a national assessment to elementary students in French and mathematics at the start of the third and sixth years of schooling. These tests provide teachers with detailed diagnostic information on each student's strengths and weaknesses, which is then used to design instruction for the year (De Luca, 1994). The same kind of assessment, including several other subjects, has now been implemented at the beginning of grade 10 (Servant, 1997). In this way, the government can monitor the quality of the school system in the formative stages and still work collaboratively with teachers toward higher educational achievement.

Communicate with noneducators

A final suggestion is that all educators more fully recognize the need to participate in a dialogue with other education stakeholders. Essentially, educators are faced with two choices: They can focus inwards, letting noneducators set the educational agenda, or they can contribute their expertise to the discussions that take place at the local, state, and national levels. Such contributions require high levels of professionalism, the establishment of credibility, and the development of communication skills appropriate for a wide audience.

Conclusion

The educational traditions and experiences of the United States are more closely aligned with those of England than Singapore. Moreover, the level and type of public discourse in the United States is similar to England and noticeably different from Singapore. Yet U.S. policy makers' aspirations are more toward the attainment levels of Singapore. Given the values inherent in the United States and reflected in its education system, there can be no quick fix gained from mimicking another country. Rather, information from and about other countries should be used as part of critical self-review, taking into account one's own context. Teachers have a crucial role to play in that self-review.

As people charged with educating this country's children, teachers have a duty to ensure that

they contribute to the conversations that are instrumental in setting policy. Such contributions require a high level of professionalism. The failure to achieve this level of professionalism invites, by default, a centralization of power that ultimately may harm those most at risk, the students.

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