

Chapter 6

Assessment for Learning Reform in Singapore – Quality, Sustainable or Threshold?

Kelvin Tan

The education system in Singapore has been transformed since its independence from colonial British rule in 1965. Reforms have occurred in three distinct phases: the *survival* phase from 1959 to 1978; the *efficiency* phase from 1979 to 1996; and the *ability-driven* phase from 1997 to the present. This chapter concentrates on assessment reform in Singapore in the third phase, and examines its impact on the nature and quality of students' learning, with particular reference to assessment for learning initiatives in schools. It argues that assessment reform in Singapore tends to emphasize and perpetuate structural efficiency at the expense of the quality of learning. It suggests that the notion of a threshold level of reform (Trafford & Leshem, 2009) could be a useful way of framing assessment reform in order to achieve a sustainable level of transformation. The chapter concludes that it is not enough for assessment reform to merely achieve a higher level of effective assessment and learning and argues that the education system requires assessment reform to be radical and ambitious enough to attain a new threshold for assessment and learning in Singapore schools.

6.1 Introduction

The education system in Singapore has been transformed beyond recognition since its humble beginnings in 1965. Then, following its independence from colonial British rule, the under-resourced system was not capable of meeting either the citizenship or the economic challenge (Gopinathan, 1999). A slew of reforms has brought about much needed change and progress, leading the respected *Times Educational Supplement* (1997, p. 1) to label Singapore as the “most academically successful nation in the world”.

There are three distinct phases in the transformation of the Singapore education system (Tan, 2006a). The *survival* phase from 1959 to 1978 was about producing

K. Tan (✉)

Policy and Leadership Studies Department, National Institute of Education, Singapore
e-mail: Kelvin.tan@nie.edu.sg

trained workers in the context of post war industrialization and mass unemployment. The *efficiency* phase from 1979 to 1996 was prompted by the report on the Ministry of Education in 1979 which sought to address the problem of inefficiency in the 1970s. Then, up to 30% of students dropped out of the education system (Ministry of Education & Singapore (MOE), 1979). The most significant phase is the *ability-driven* phase from 1997 to the present, described by one writer as the “big bang” in educational reforms because the entire education system was reviewed (Gopinathan, 2001).

This chapter examines assessment reform in Singapore since 1997, and its impact on the nature and quality of students’ learning. In particular, the impact of assessment for learning (AfL) initiatives in schools is examined. It is argued that much of assessment reform in Singapore emphasizes and perpetuates structural efficiency at the expense of the quality of learning. The notion of a threshold level of reform (Trafford & Leshem, 2009) is suggested as a way of framing assessment reform to achieving a sustainable level of transformation. The chapter concludes that it is not enough for assessment reform to merely achieve a higher level of effective assessment and learning. It is argued that the Singapore education system requires assessment reform to be radical and ambitious enough to attain a new threshold for assessment and learning in Singapore schools.

6.2 Recent Educational Developments and Assessment Reform in Singapore

In 1997, the Ministry of Education (MOE) of Singapore announced a new vision for education intended to produce school leavers capable of thriving in the new Millennium. This vision represents a watershed in Singapore’s education system and was termed “Thinking Schools Learning Nation” (TSLN). It sought to replace an efficiency-driven education system with an ability-driven system. The emphasis was to motivate students to “value learning, empower them to use information for problem solving purposes, enabling them to work in teams to lead, share and follow, to learn in an open ended manner valuing divergence, encouraging a questioning attitude and developing communication skills” (Gopinathan, 1999, p. 299).

Senior Minister Goh Chok Tong, then Prime Minister of Singapore, explained TSLN as a vision for a total learning environment, for students, teachers, parents, workers, companies, community organizations and the government (Goh, 1997). Under the “umbrella” vision of TSLN, various initiatives were launched to address the different needs to begin, sustain and pursue the ambitious vision. Syllabi, examinations and university admission criteria were changed to encourage thinking out of the box and risk-taking. Students’ involvement in project work and exposure to higher order thinking questions resulted in greater creativity and independent as well as inter-dependent learning (Ng, 2005).

In 2004, Prime Minister Lee Hsien Loong commented in his inaugural National Day Rally speech that “We have got to teach less to our students so that they will learn more” (Lee, 2004). The term “Teach Less, Learn More” (TLLM)

quickly became a catch phrase amongst policy-makers, principals and teachers, and eventually became a major policy initiative in the Singapore education system (Ng, 2008).

Since then, TLLM is frequently mentioned in relation to ideas and practices aimed at enhancing student learning and promoting thinking students. For many teachers, TLLM represents the pedagogical embodiment of producing thinking students that would develop and construct a nation of future learners (Tan, 2007).

Politicians are increasingly aware that what is taught, and how, can be indirectly asserted through the control of high-stakes assessment. Educational assessment has thus become a highly contested area as the focus of complex political, economic and cultural expectations for change (Filer, 2000). Singapore's national high-stakes assessment system is intended to perform a number of important institutional tasks such as to provide an objective and politically acceptable measure of student learning and to allocate students into different curriculum tracks and schools based on their academic performance (Hogan, Towndrow & Koh, 2009).

In Singapore, the centralized bureaucracy of the education system exerts its central authority in and through assessment policy by creating and perpetuating a centrally-planned and common assessment framework. This common assessment framework applies to all schools in Singapore, and is in turn administered by a central examination authority, The Singapore Examinations and Assessment Branch, which is part of the MOE. As students take the same national examinations, there is the perception of a level playing field for all, regardless of their ethnic and socio-economic status. Students' subsequent progression into schools and institutions of higher learning and placement into courses at each educational level is based on their performance in common national examinations. These are meant to reflect the notion of a common, level playing field and the principle of meritocracy.

The Singapore Examinations and Assessment Board of the MOE has purportedly developed new assessment practices to cater to the pedagogical changes of TLLM. For example, Sellen, Chong, and Tay (2006) argue that an assessment shift in the form of a greater emphasis on coursework and new assessment items and methods have been developed in the past few years to cultivate thinking skills and foster a capacity and desire for lifelong learning. Specifically, these changes include the introduction of

- Project Work for pre-university students in 2003 as part of university admission criteria
- Science Practical Assessment as a coursework initiative for secondary and pre-university students
- Source-based items in Social Studies and History for secondary school students
- Data response items in Geography for secondary and pre-university students
- Case study items in Economics for secondary and pre-university students

But do the new ways of designing assessment and utilizing assessment result in schools actually enhance students' learning in a manner consistent with the stated intentions of TSLN and TLLM? This begs the question of the prevailing purposes

of assessment in the Singapore education system – whether assessment is merely to serve a gate-keeping function to sort students for school admission (Gregory & Clarke, 2003), or also meant to enhance the quality of students' learning in the process of assessment as well. The utility of national examinations as a sorting mechanism should also be understood against the backdrop of the intensive competition amongst schools and the school ranking system.

Assessment may be said to serve multiple purposes, and one way of determining what constitutes effective assessment (and therefore effective assessment reform) is in terms of its fitness of purpose, i.e., the purpose(s) that assessments seek to fulfill in any given context. Hence, it is instructive to ponder what assessment is actually meant to achieve in relation to learning in Singapore.

Formative and summative assessment are commonly understood as “assessment *for* learning” and “assessment *of* learning” respectively. Hence, assessment used primarily to measure the extent or nature of what students have learned is understood as *summative* assessment. This would include high-stakes national examinations and school tests and assessment for streaming students into different ability levels. In contrast, assessment practices that involve the generation and use of feedback primarily intended to enhance what students may learn is categorized as *formative* assessment. Formative assessment comprises of activities primarily designed and undertaken by teachers, and/or by their students, to provide information to be used as feedback that would then enhance students' learning (Black & Wiliam, 1998).

When Prime Minister Lee Hsien Loong first mooted the “Teach Less, Learn More” initiative in his inaugural National Day address on 22 August 2004, he said: “We've got to teach less to our students so that they will learn more. Grades are important – don't forget to pass your exams – but grades are not the only thing in life and there are other things in life which we want to learn in school.” Perhaps this belies an implicit recognition of the adverse effects of high-stakes summative assessment. Assessment practice may be said to shape students' experience of learning, and even schooling, in drastic ways. Whilst assessment is seen as a necessary evil to meet the need to measure and compare students, the side effects of summative testing cannot be ignored.

A recent nation-wide investigation into the intellectual quality of assessment tasks in schools suggests that assessment practices by and large may not be oriented towards students' understanding, let alone utilize assessment to enhance understanding. In 2004–2005, a major research project was undertaken to examine the quality of teacher assignments and associated student work in Singapore schools (Koh & Luke, 2009). Altogether, 6,526 samples of teachers' assessment tasks and associated student work from Primary 5 and Secondary 3 lessons in English, Social Studies, Mathematics, Science, Chinese Language, Malay Language, and Tamil Language in 59 Singapore schools (30 primary schools and 29 secondary schools) over 2 years (2004–2005) were collected and analyzed. At the same time, classroom observations were made in order to situate the instructional and formative practices of teachers with the assessment tasks. The types of assessment tasks included daily class work, homework assignments, major assignments/projects, and teacher-made tests.

The findings of this study were that assessment tasks focused heavily on assessing students' memorization of factual and procedural knowledge. The assessment

tasks were found by the investigators to be of low authentic intellectual quality in all subject areas except for Primary 5 Social Studies, the only non-examinable subject in Singapore elementary schools in the study. The consequent student work demonstrated a high level of reproduction of factual and procedural knowledge. Likewise, a similar study in Hong Kong involving 300 teachers from 14 primary and secondary schools by Brown, Kennedy, Fok, Chan, and Yu (2009) found its sample of Hong Kong teachers to strongly associate using assessment to improve teaching and learning by making students accountable through examination preparation practices. From the study, Brown et al. (2009) suggested broader Chinese cultural norms concerning examinations to be a significant part of school culture that would impede the assessment reform agenda in Hong Kong and other Confucian societies such as Singapore (see Chapter 4 by Berry).

Such concerns over the prevailing negative effects of examination practices on students' learning prompted the MOE in Singapore to re-examine the relationship between assessment and learning in primary schools. In April 2009, the Primary Education Review and Implementation (PERI) Committee called for examinations for Primary 1 and 2 to be replaced by school-based holistic assessment practices to support learning. It was argued that in these early years (typically 7–8 years of age), too much emphasis on semestral examinations would impede students' confidence and desire to learn, and prevent students (and teachers) from understanding and using assessment to support and improve learning (Klenowski, 2009).

Such a decreased emphasis on semestral examinations provides opportunities for teachers to in turn emphasize AfL. However, recent studies would suggest that even formative assessment practices without overt high-stakes summative assessment pressures would be challenging in their own right. Webb and Jones (2009) reported a study in Jersey, United Kingdom, wherein activity theory was utilized to examine the formative assessment processes of six primary school teachers and their classes. Formative assessment was identified by the participating teachers as “a philosophy of learning focused on learners taking responsibility for their learning by developing understanding of what and how they were learning through a two way feedback process” (p. 176). The study revealed difficulties in dealing with “the contradiction between the culture in the existing classroom community and the new mediating artefacts, particularly peer feedback and dialogue” (p. 175). In particular, the teachers in the study voiced the need for ample time to establish an appropriate culture in the classroom community and emphasized the importance of attaining such conditions *before* formative assessment practice can be developed. It is not certain whether such conditions can be said to exist in Singapore schools for formative assessment practices to flourish.

6.3 What Does Formative Assessment Do for Learning in Singapore?

The TLLM initiative encapsulates new pedagogical aspirations in teaching and assessment in bringing about new levels of thinking and desired learning for students. It enjoys unprecedented levels of financial support and assumes the status

of policy. For example the MOE announced in January 2008 generous resources over the next 3 years for schools embarking on TLLM initiatives (MOE, 2008). Ominously known as the “TLLM Ignite! Package”, the recent initiative promises to provide up to 100 deserving schools each year with up to \$15,000 per school as well as a range of human resource support and expertise.

The TLLM initiative hints at what assessment practice should be achieving from the viewpoint of enhanced pedagogy. On the website of the MOE (MOE, 2007), it is stated that assessment supporting enhanced pedagogy and learning in TLLM should be conducted “more qualitatively, through a wider variety of authentic means, over a period of time to help in their own learning and growth, and less quantitatively through one-off and summative examinations.”

I argue that this not happening in Singapore schools. Instead, the intended “qualitative” approach to assessment is perverted by quality assurance pressures that distort and fragment what students actually learn.

There is a dominant quality assurance discourse in Singapore education in the form of excellence models, external validations and inspections of schools all based on performance indicators (Ng, 2003). Whilst assessment may provide a basis for assuring academic standards and reliable procedures may give the impression of good order, the presence of quality assurance processes on assessment does not in itself mean that there is good quality assessment practice. Instead, quality assurance procedures may have a potentially detrimental effect on student learning. Bloxham (2009, p. 214) warns of the following detrimental effects of quality assurance on students’ learning:

- It creates an illusion of confidence which may skew assessment design away from that which supports learning towards that which provides certification and “quality assurance”.
- Extensive external moderation may delay the return of work and accompanying feedback to students.
- Anonymous marking may render dislocation between tutor and students, and undermine the dialogic quality of feedback.

Ironically, such processes tend to look for quantifiable performance indicators which may or may not reflect the complexities and subtle nuances of quality change (Ng, 2008). This is especially true for TLLM and its consequent assessment discourse. Firstly, it should be pointed out that TLLM originated as a passing remark in a speech. Whilst it has subsequently been repeated and reconstructed as a policy, the term “Teach Less, Learn More” itself is nothing more than a slogan. And slogans face inherent limitations in articulating pedagogical guidelines and assessment reform (Tan, 2008).

A qualitative approach to assessment that TLLM requires emphasizes the holistic dimension of assessment and learning. Qualitative assessment may be described as assessment practices that encourage open-ended responses (as opposed to standardized instruments), permits meaningful student involvement (as opposed to unilateral testing) and takes place over a period of time (as opposed to controlled environments) in order to prompt, judge and enhance holistic understandings (Tan, 2007).

Can we claim that students in Singapore are prompted by assessment practices to achieve holistic understanding of different topics and ideas in relation to each other? A relational, holistic understanding of relevant concepts is indeed a tall order and a high ideal to strive for in assessment practice, and TLLM.

Tests and examinations are typically conducted in controlled environments and this is useful and convenient from the view of managing students and handling marking loads. The purpose of such assessment is not primarily intended to enhance the quality of student learning, but in the case of national examinations in particular to function as “gatekeepers to educational opportunities throughout the Singaporean education system” (Gregory & Clarke, 2003, p. 70). In Singapore, standardized tests and examinations are administered at different stages in the school system, and better students streamed into studies on the arts and sciences whilst weaker students are channelled to vocational-technical training (Tan, 2006b). The cost of emphasizing such clinical conditions for high-stakes assessment of learning is the tendency to isolate students through assessment practice and to give the impression that knowledge can be reduced to periods of intense examination. Because tests and examinations need to reduce the examination of learning to a fixed period of time, this in turn pressures the forms of learning to be demonstrated in isolated instances of different learning outcomes.

This impacts teaching and learning activities, often leading to the compartmentalization of the curriculum into disparate and unrelated segments. The compartmentalization of different topics into different questions avoids the needs for students to make connections of their knowledge. The increasing modularization of syllabi does not help either, creating artificial modularizations of knowledge with accompanying assessment practices isolated within artificial modularized boundaries. The resultant situation is akin to what Sadler (2007) describes as *decomposition*, of segmenting the whole into manageable units such that it is difficult to “the make the bits work together as a coherent learning experience that prepares learners to operate in intelligent and flexible ways” (p. 389). Consequently, students experience the curriculum in a linear fashion, moving from one topic to the next without necessarily making sense of the subject as a whole. More often than not, a reductionist view of learning is constructed and perpetuated.

6.4 What Should Assessment Reform Actually Do for Learning in Singapore?

Having examined the effects of high-stakes assessment and the limitations of formative assessment practices in schools, I now discuss the potential for orientating assessment practices in more constructive ways to enhance students’ learning in Singapore. Three recommendations are made:

- Emphasizing clarity of standards for formative purposes of assessment and feedback
- Making formative assessment sustainable to enhance future learning
- Recognizing the importance of self-assessment in formative assessment

6.4.1 *The Critical Need for Clear Standards in a Norm Referenced Assessment System*

What are standards? In common discourse, standards are whether the results of a programme of study or an examination show a level of satisfaction/achievement. But in terms of functioning as a yardstick for gauging whether learning (or enhancement of learning) has actually taken place, standards need to be more unambiguously defined *before* tests and examinations.

Hawe (2002) describes standards-based assessment or standards-referenced assessment as emphasizing “explicit specification of standards, the use of teachers’ qualitative judgments and development of shared understandings regarding the interpretation and operationalization of these standards” (p. 94). Buckles, Schug, and Watts (2001) argue that clear descriptions of standards of performance are important for informing students what they are expected to learn and how they should perform in their assessed work and for informing teachers how they can assess students accordingly.

Assessment for summative purposes can also be used for feedback, but only if certain conditions are present. For example, summative assessment which is purely norm-referenced and is not standards-based has poor clarity for offering feedback for enhancing learning.

Assessment in Singapore schools is commonly understood and labelled as either summative or formative. The annual examinations serve as a reference for describing all preceding forms of school assessment. Typically, assessment is described as continual assessment (CA) or semestral assessment (SA). Both CA and SA are viewed as summative assessment in view of the fact that the marks for both assessments count towards the final computation of a student’s academic attainment. The final aggregate result is high stakes for students because it determines whether they can progress to the next academic year and their placement into an ability-differentiated class. Such high-stakes assessments are viewed as summative assessment. Any assessment that does not count towards the computation of marks for progression and placement is considered formative.

However, the backwash effect of high-stakes assessment in Singapore poses challenges to utilizing assessment, especially formative assessment practices, for enhancing learning in Singapore schools and classrooms. High-stakes national examinations do not report students’ learning against pre-defined standards. Instead, each student is given a numerical score which represents his or her aggregate score for all examined subjects. This aggregate score is then used to rank students’ eligibility for acceptance into his or her school of choice. It is used to discriminate an annual cohort of roughly fifty thousand students to decide on the allocation of school places based on the notion of meritocracy. But the aggregate score in itself does not indicate what, or how well, a student has learnt anything.

Preceding school assessment in Singapore is meant to prepare students for such a high-stakes examination, and the backwash effect of norm-referenced national assessment can be seen in numerous schools’ practice of reporting their students’ assessment outcomes in terms of *banding*, i.e., which discriminated level of

students' academic achievement their results fall under. Such bands do not describe standards of learning, but merely pinpoint where they stand in relation to their peers' academic results. Such practices do not encourage students to understand standards in order to benefit from their teachers' feedback. Formative assessment practice is difficult, if not impossible, in such circumstances.

6.4.2 Formative Assessment Must Be Sustainable to Enhance Future Learning

Whilst the importance of formative AfL is commonly recognized in schools, the place and use of formative assessment for long term learning is not as obvious. Boud (2000) had identified formative assessment practices to be vital to achieving sustainable assessment but observed that discussion of formative assessment in the literature and in practice “has made relatively little contribution to current assessment thinking” and that “new thinking is therefore required to build sustainable assessment” (p. 159).

In this regard, a criticism may be levelled against purported formative assessment practices in Singapore for being myopic. Such formative and feedback practices focus unstintingly on assisting students to achieve better results in the next high-stakes assessment, but do not assist students to strengthen their capacity for learning beyond their formal education. The myopic attention to academic attainment raises questions about the quality of learning, and whether assessment practices may be said to displace learning under the guise of seeking to enhance the same learning. For example, Torrance (2007) warns of the possibility of over-emphasizing the detailed description of assessment criteria to be attained as a basis for “good” formative assessment practice. Instead, he warns that this may lead to unthinking compliance in assessment-driven learning, a phenomenon he describes as *assessment as (a substitute for) learning*.

The idea of sustainable assessment seeks to achieve present learning outcomes without compromising on students' capacity for future learning. Sustainable assessment can be understood as “assessment that meets the needs of the present without compromising the ability of students to meet their own future learning needs” (Boud, 2000, p. 151). Perhaps the most critical requirement for students to meet their own future learning needs is their capacity to judge what their own learning needs are and how they can go about meeting these needs. My view is that students will need to be involved in and empowered through assessment practices in order for suitable assessment to have a chance. Self-assessment ability is therefore a critical ingredient for students' lifelong learning.

6.4.3 The Importance of Self-Assessment in Formative Assessment

Student self-assessment is identified closely with effective formative assessment, i.e., assessment practices that emphasize the enhancement of learning. Both Sadler

(1998) and Black and Wiliam (1998) emphasize the need for formative assessment to involve students in generating and understanding feedback that explains the gap between the state revealed by feedback and the desired state. Sadler (1998) goes further by arguing that “any formative assessment that is not self-assessment involves (merely) communication. . . (and) that the communication is from the teacher to the learner” (p. 79). But how seriously should we take the notion of students assessing themselves in schools? If student self-assessment is understood as a pre-requisite for formative assessment to take place, then should it be optional or mandatory in schools? This question does not have unanimous consensus in the literature.

For example, some teachers may believe in the value of student self-assessment, but yet allow their students the option of not participating in self-assessment activities at all in order to lessen the disciplinary effects of self-assessment. Leach, Neutze, and Zepke (2001) advocate such an approach, arguing that self-assessment should be optional for learners and the freedom to choose whether or not to assess themselves represents a form of empowerment. I am generally hesitant about the notion of optional self-assessment being empowering for students and would not agree with this approach for two reasons.

Firstly, students who choose not to self-assess are not necessarily empowered since this decision may be a sign of their docile and disciplined condition in the first place. After all, it is not inconceivable that students will decide against self-assessing their work because they lack confidence, in themselves or in the teacher, to do so. Secondly, reducing self-assessment as an option contradicts the general consensus that self-assessment should be a central focus and attribute of formative assessment and education in general. I argue that self-assessment cannot be a critical element and an optional practice at the same time. If students are expected to be able to judge their own learning in order to understand and act on teachers’ feedback, then self-assessment cannot be presented as an option for them to dismiss. Conversely, if self-assessment is a practice that can be ignored by students, then it is difficult for teachers to insist on it as part of their formative feedback practice.

6.5 Conclusion: Towards a Threshold of Sustainable Assessment in Singapore

In order for assessment to enhance imminent learning and safeguard students’ capacity for future learning, there will need to be a different kind of assessment reform in Singapore. Such reform needs to be focused on establishing the quality and enhancement of students’ learning as a priority, and needs to introduce changes that will unlock the true potential of formative assessment in Singapore schools. I argue that assessment reform needs a threshold concept in order to address structural obstacles to learning and unlock the true potential for assessment to enhance immediate and long term learning.

Meyer and Land (2003) coined the term “threshold” as a metaphor to describe a certain level of learning-gain such that passing through this threshold (portal)

means that the learner acquires transformed capabilities in conceptualization. Such a threshold thus represents a gateway for the learner to understand the accompanying concepts and theories. Likewise, Davies and Brant (2006, p. 113) describe a threshold concept as presenting “levels of understanding in a subject (or activity) that can be used in assessment for learning”.

Four attributes of threshold concepts are suggested by Meyer and Land (2003), and I shall use these attributes to expound what it would mean for assessment reform in Singapore to attain a threshold of sustainable assessment.

Firstly, a threshold level of assessment reform in Singapore needs to be *irreversible* so that new perceptions and understandings of what assessment should do for learning will not be reversed. Huge parental interests and anxiety in students’ future careers often hinge on students’ academic results in national examinations. Parents, as stakeholders, are not necessarily interested in utilizing assessment to enhance their children’s learning. They are likely to be far more concerned whether assessment or AfL practices would jeopardize their children’s academic results in any way. Assessment reform in Singapore should be directed towards achieving the present and future learning needs of students in ways that cannot be reversed or undermined by resistant parents.

Secondly, just as assessment should not atomize learning which is hitherto holistic and integrated, assessment reforms should also be coherent and *integrative*. Reformed assessment changes should seek to cohere assessment practices in schools. Just as learning and the curriculum should be holistic and understood in relation to its constituent parts, assessment practices should be designed and practised as an integrative whole to preserve the integrity of students’ learning. This would go a long way towards preventing the atomizing of curriculum through assessment modularization.

Thirdly, assessment reform can be valuable as a catalyst for transforming the direction and value of education. To reframe assessment reform in a way that makes learning important, it is critical to recognize that assessment is bounded by, and therefore can act as the *pivot* for, the different forms of learning and understanding that a holistic education can bring about. Education in Singapore is essentially pragmatic, and assessment is seen as the most direct opportunity to secure sought-after school places, and eventually stable lucrative careers. Assessment reform that is directed at emphasizing the epistemological richness of learning different subjects and disciplines would instead redirect assessment outcomes from its regulatory features towards emphasizing its learning features (Boud, 2007).

Finally, assessment reform should be *potentially troublesome* in raising new perceptions that may be quite unfamiliar, or which raise new issues concerns. A well-regarded education system will find it hard to admit to areas for improvement, even if it implicitly does so by an unrelenting pursuit for continuous progress. However, the rhetoric of continual steady progress may sometimes disguise troubling issues which act against the direct interests of some students. Although there have been inevitable mistakes in educational policy over the years (Gopinathan, 1999), such admissions have not been publicly disclosed.

A threshold level of assessment reform would help to bring about a greater level of confidence, perhaps to a sufficient level of reassurance that would permit the MOE, schools leaders and teachers to publicly admit to troublesome issues to address in and through assessment practices. Just as formative assessment seeks to bridge the gap between present and desired levels of learning, a threshold of assessment reform can articulate the gap between the troublesome issues that plague assessment practices in Singapore schools and the desired levels of irreversible, pivotal and integrative learning that the nation and its learners may aspire to.

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