
Title	Lessons from a disciplined response to COVID 19 disruption to education: Beginning the journey from reliability to resilience
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This is an Accepted Manuscript version of the following article, accepted for publication in Assessment in Education: Principles, Policy & Practice. Tan, K. H. K. (2022). Lessons from a disciplined response to COVID 19 disruption to education: Beginning the journey from reliability to resilience. Assessment in Education: Principles, Policy & Practice. Advance online publication. <https://doi.org/10.1080/0969594x.2022.2162480> It is deposited under the terms of the Creative Commons Attribution-NonCommercial License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited.

Lessons from a disciplined response to Covid 19 disruption to education: beginning the journey from reliability to resilience

The COVID-19 pandemic has devastated economies, increased social divisions, and disrupted educational systems across all countries. The ensuing changes have drastically affected every country's socio-economic-political systems, and have forced a deep re-examination of fundamental assumptions in educational and assessment systems. Assessment, especially in centralised educational systems, reward certainty and thrive on predictability. The unprecedented nature of the pandemic and its consequences have punished assessment systems for its over reliance on controlled premises for our high stakes assessment.

In terms of responding to such threats, the immediate reaction in 2020 at the onset of the pandemic outbreaks was almost exclusively on restoring 'high stakes' examinations in many countries. This perpetuates the impression that only national examinations are important and have 'stakes'. Assessment that is not described as 'high stakes', such as formative assessment practices in schools, are implied not to have anything at stake and are unimportant. This paper examines what is at stake for, and with, assessment in our post pandemic future. It argues that it is not enough for assessment to be fit for purpose, and proposes new ways of understanding assessment to develop learners to be resilient and fit for an uncertain future .

Singapore's assessment system is a useful context to re-examine fit for future assessment imperatives on a national scale. Singapore's educational system is a carefully planned orchestration of high level policy making, loyal meticulous implementation of policies in schools, and efficient management of public perception and discourse. These characteristics lend a pervasive discipline in decision making by authorities and compliance with directives from authorities. Such discipline has undoubtedly served the city state well in its national response to the challenges and consequences of the pandemic. Much of such discipline can in turn be traced to its education system, and its national assessment practices and reforms.

Unlike countries with federal governments and differing practices across states (such as Australia, the United States), Singapore's compact educational system permits it to achieve a high degree of integration between large scale and nation wide assessment policies and classroom assessment practices in schools (Volante et al., 2020). The education system of Singapore is compact and highly centralised, and its major assessment policy reforms are orchestrated with ubiquitous discipline, standardization, and acute levels of co-ordination. This tight alignment between assessment policy making and implementation in schools has been evident in all its major assessment reforms in the past decade – for example the emphasis of using assessment to support learning to decrease stress from the high stakes and frequency of examinations, the shift to scoring bands in the Primary School Leaving Examination (PSLE) results, and the shift to streaming at subject levels and provision of multiple switching of subject streams. In each instance, the assessment reform was first announced with a high degree of detail, and schools were prepared to address questions immediately from parents and commence the implementation with urgent haste. This model and approach to assessment reform has been predicated on the assumption that circumstances and outcomes may be largely controlled, predicted, and that mostly tweaks are required from the original masterplan. This is not dissimilar to the notion of assessment reliability,

and how examinations are conducted. However, such a working premise may no longer be available with the disruptions to educational planning and centralised systems that the Covid-19 pandemic has brought to bear. Likewise, the reliance on assessment reliability as the cornerstone for what is at stake in assessment may not be tenable in the future.

The Singapore education system and its assessments

The educational system still is very much dominated by national high stakes assessment and its washback effects on school assessment and curriculum. The education system in Singapore has been characterized as examination-oriented (Cheah, 1998; Gopinathan, 2001; Lim-Ratnam, 2013), and admission to each level of education is determined solely by examinations for the majority of students, rendering them high stakes. The secondary school a child ends up in depends on the results obtained at the national Primary School Leaving Examinations (PSLE) at the end of primary six.

Meritocracy is cited as the principle for competitive admission into secondary schools, pre university and university, as a fair and objective basis for managing the difference between the demand and supply of popular schools. Scarcity of vacancies in local universities and for popular secondary schools create fierce competition. Consequently, the assessment system(s) serves as a sorting mechanism in Singapore, and has inadvertently remoulded the curriculum, washing back into primary and secondary schools (Tan, 2011).

However, it is debatable whether these examinations help or hinder the problem of managing scarcity in educational demand for popular schools. It may be argued that the highly competitive stakes of national examinations create and perpetuate artificial scarcity of success where one succeeds only if one finishes high in the rank order (Stiggins, 1995). Unsurprisingly, private tutoring constitutes a formidable shadow education system (Bray and Lykins, 2012), and the sale of assessment books and examination papers from top performing schools is a lucrative business (Barr & Skrbiš, 2008). For example, one of the effects of the recent removal of mid-year examinations in odd numbered years in schools was the swift response of tuition agencies to offer mock mid year examinations to students to fill the gap. Such a move reflects the psychological reliance that parents have on examinations, as well as the readiness of the tuition industry to perpetuate examination as learning.

These high stakes in the national examinations wash back into stressful school based examinations, and societal mechanisms place great pressures on students and teachers to produce results from any school assessment preceding the Primary School Leaving Examination (PSLE) at the end of Primary Six (Tan, 2011). Consequently, the high stakes of examination results have become an institutional authority of assessment purpose in schools, and have created standards of performativity of teaching and learning for middle and school leaders. (Leong & Tan, 2014; Tan, 2017). These narratives of performativity and fairness have been institutionalized and normalized through the notion of ‘meritocracy’.

Stated neutrally, meritocracy “points to merit as the rule or principle that governs how the economy, society, and politics are organized ... simply a mechanism for allocating resource/opportunity to appropriate individuals” (Tan, 2008, p. 8). Originally discoursed as a pejorative term by Michael Young in 1958 to describe the dysfunctional consequences of merit

and intelligence replacing social class order (Young, 1958), it has since been presented as a positive ideal in the United Kingdom (Allen, 2011), and as the only viable premise of fairness in Singapore (Tan, 2008).

But meritocracy has proved to be an impossible standard to achieve, and has been identified in the United States as being responsible for providing incentive for affluent individuals to seek unfair advantages simply to attain the lustre of merit. Meritocracy is commonly associated with fairness, but Michael Sandel (2020) argues forcefully that “disagreements about merit are not only about fairness . . . , but also about how we define success and failure, winning and losing” (p. 14).

Sandel argues for the meaning of merit to be reconsidered, and for ways to restore the dignity of work and education. In particular, there is a clarion call to “seek a common good beyond the sorting and the striving” (Sandel, p. 15).

What is the common good in education and assessment that meritocracy may espouse?

A good starting point for unpacking the complexities of what counts as meritocracy, as the common good that meritocracy should uphold, is to recognize that there are powerful tensions within the discourse and practice of meritocracy. Lim (2013) argues that Singaporean meritocracy exists as a tension between egalitarian and elitist ideologies (Lim, 2013). Tan & Deneen further elaborates egalitarian meritocracy as prioritizing the means of attaining merit and emphasises equitable means and opportunity to all individuals prior to merit-based discrimination. In contrast, elitist meritocracy prioritises the end results of who is determined to be of merit, and emphasise differentiation of opportunity and resources according to assessed merit and concomitant sorting of individuals.

What counts as merit and how merit is assessed is often controlled by elites, and it may be argued that schools in Singapore act as early purveyors and formulators of what society ultimately and eventually recognises as merit (Tan & Deneen, 2015). This has not received universal acceptance. Ho, Sim, and Alviar-Martin (2011) called on teachers and students in Singapore to critically examine the limitations of the use of meritocratic principles and to question the dominant discourses that positioned citizens differently on the basis of their academic performance and qualifications. But perhaps it is in the area of assessment that most scrutiny of the machinations of meritocracy in schools should be directed.

Assessment serves as the primary mechanism for sorting and labelling students according to the tested merit of their learning. This renders learners passive and captive to being stratified socially, and educationally, through national and school based assessment. It also perpetuates the existence of an elite in Singapore society that dominates political governance (Bellows, 2009). Left unchecked, this would result in more elitist dominated societies, who may then restrict access of non elites to power and influence.

The construction of merit in society begins in school when students experience the judgement of the merit of their work in student assessment. Greater participation in the determination of merit in school assessment practices is required for increasing access to the meritocracy debate in society (Tan and Deneen, 2015). What is sorely needed is to emphasise learning and educational outcomes beyond the stakes associated with examination results, to develop learners' long-term capacity to participate in assessing and evaluating merit and in determining merit in a democratic society. Such participative capacity involves at least two things—the *opportunity* to participate in discussions and debates about what should constitute merit, and the *ability* to contribute to and influence decisions of what qualifies as merit.

A critical mass of such “participative capacity” would be required to ensure that meritocracy would not be protected and perpetuated by an elite minority. The perpetuation of such examination generated elitism is of concern to the Singapore government. In the past few years, there has been a distinct effort by the Ministry of Education, Singapore, to shift assessment purposes and discourse away from high stakes testing for placement and stratification, towards using assessment to signal and support learning within and beyond schools. These have been communicated and implemented in a series of assessment reforms

- (1) From 2008, the shift from learning for grades, to reducing examinations and using assessment to support learning
- (2) From 2016 - changes to the Primary School Leaving Certificate national examination
- (3) From 2018 - changes to assessment and streaming in Secondary schools.

The shift from learning for grades, to reducing examinations and using assessment to support learning

In 2008, the Primary Education Review and Implementation (PERI) Committee (the Committee) was appointed to study and recommend wide ranging changes to primary education in Singapore. The Committee recognised that some parents “felt the need to shift towards a less exam-oriented culture where academic results are not the only measure of a child’s success” (p. 35).

The PERI Committee explained that, “Assessment is an important aspect of teaching and learning which should be effectively used to support the holistic development of our pupils” (p. 34) by providing “stakeholders such as teachers, parents and pupils with meaningful information about how well pupils have progressed by highlighting their strengths and areas for improvement” (p. 34). The Committee also noted that some parents “felt that students needed to be prepared from young to sit for examinations” (p. 35). These two recommendations reflect the tension of formative and summative assessment purposes in Singapore schools.

The then Minister of State for Education, Grace Fu, opined that “instead of a heavy emphasis on year-end pen-and-paper examinations, teachers should use a range of assessment modes and bite-sized forms of assessment for richer feedback on learning” (Fu, 2010). However, it is not apparent what these bite-sized forms of assessment should actually do for enhancing students’ learning. Tan

(2011) argues that the nature of bite-sizing assessment does not in itself offer any additional benefit for building students' confidence or enhancing their learning, but instead "dismembers learning into bite-sized portions [that] may have the unintended effect fragmenting learning into unrelated segments of information which do not add up to a coherent whole" (p. 100). Such reductionist outcomes of learning would contradict the stated intention of the PERI recommendations of "providing a more holistic and balanced education for primary school pupils." (PERI Report, p. 34). Likewise, Klenowski (2009) observed that "bite-sized modes of assessment, such as topical tests, to provide regular feedback on pupils' learning to parents' in Singapore, could lead to the issue of performance-orientated learning to the detriment of sustained and real learning." (p. 265). It would seem that bite-sized assessment was directed at the modes and methods of assessment to students, but did not fully address deeper concerns of making learning more accessible for all students.

In addition, there has been a gradual removal of mid year examinations to signal that school should spend less time testing students in preparation for national high stakes examinations, and to free up curriculum time for learning instead. Mid-year examinations and year-end examinations in P1 were removed in 2010 and for P2 students a few years later. In 2019, it was announced that mid year examinations would be removed in phases over the next three years in odd numbered years – in P3, P5, S1 and S3 (equivalent to Grade 3, 5, 7 and 9 respectively). In addition, schools were tasked recently to reduce their school-based assessment load by 25% in each of the two-year blocks in primary and secondary schools. School were also told to remove weighted assessments in P1 and P2, as well as the mid-year examination in S1. And most recently in March 2022, the Ministry of Education announced that all mid year examinations would be removed for primary and secondary students by 2023. The total removal of mid year examinations in primary and secondary schools follows the intent of the PERI recommendation to de-emphasize learning for examination and to use assessment to build students confidence and desire to learn.

The impact of these measures to bite size assessment and reduce examination frequency in schools may be gauged in terms of its impact on classroom assessment practices and teachers' beliefs on assessment purpose. A large-scale nation-wide project on classroom practices (Hogan, et al. 2013) was conducted in 2010 that involved 114 primary and secondary schools. Teachers' responses on assessment were examined in terms of their beliefs about the high stakes testing environment in Singapore schools, about student abilities, about instructional practices, and innovative pedagogies. The findings indicated that teachers largely used feedback in highly limited ways: to correct or highlight mistakes and students' weaknesses, re-teaching, giving students suggestions on improvements, using good performance tasks for students to model after, and giving students praise (Rahmat & Wong, 2017). Feedback practices did not seem very formative, with teachers seeming to be concerned with providing student feedback only when students performed below expectations.

Likewise, attempts to introduce Assessment for learning in secondary schools remain mixed. Teachers value AfL but perceive a lack of assessment literacy and opportunities to practice it (Deneen et al., 2019). In contrast, summative assessment is valued less than formative assessment, but teachers claimed to be more proficient in it and use it more than formative assessment. It would seem that Singaporean teachers are still struggling to prioritise formative uses of assessment in schools, and preparation for high-stakes summative assessment remains the primary preoccupation with assessment in Singapore schools.

Changes to the Primary School Leaving Certificate national examination

As part of a larger shift to “nurture well-rounded individuals and move away from an over-emphasis on academic results” (Teng, 2016), changes were made to the computation and reporting of assessment results in the PSLE with effect from 2021. These changes were aimed at the following objectives:

- Reduce fine differentiation of students
- Reflect a student’s level of achievement regardless of how his peers have done
- Encourage families to choose schools based on their suitability for the child’s learning needs, talents and interests.

Prior to 2021, the PSLE system reports students’ results in term of a transformed score, which emphasizes discrimination between different students rather than reporting achievement in terms of grades and/or standards. Whilst each student receives a grade for each subject, entry to secondary schools is not based on students’ grades. Instead, the aggregate raw scores of all four subjects are converted to a transformed score (“T score”), which is used to discriminate between different students for secondary school selection. This led to students being stressed about achieving the highest possible marks for their subjects, fearing that the difference of marks may lead to an unfortunate difference in the T score they may have depended on for their acceptance into their choice secondary school.

From 2021, each PSLE subject will be scored according to an achievement level, and students’ relative performance within each achievement level (AL) would not be considered in any way. Each subject has 8 ALs, with AL 1 being the highest achievement. This new PSLE Score will range from 4 to 32, and will replace the T-score Aggregate. With the new scoring system, the hope is that students will no longer be as finely differentiated, since there will only be 29 possible PSLE Scores.

The setting of PSLE examination questions and marking of scripts is managed by the Singapore Examinations and Assessment Branch (SEAB). On its website, SEAB describes the new PSLE system of reporting examination performance in the form of aggregating the numerical scoring bands of the subjects instead of a single numerical transformed score as ‘standards-referenced assessment’, and assure that “a student’s actual achievement is assessed against the pre-determined standards of performance rather than compared the achievement of other students.” (Yue & Chow, 2020, p.4). Leong (2020) elaborates that “a standards-referenced assessment makes references to syllabus documents for curriculum standards, and past examination papers and benchmarks scripts for examination standards” (p. 11).

Sadler (1989) argued that a necessary condition for the intelligent use of assessment feedback is that learners know the level or standard aspired to or expected. Such clear and unambiguous depictions of achievement standards are vital for identifying feedback gaps for formative assessment practice (Tan, 2013). The clear and unambiguous change in the PSLE achievement bands is that they report achievement in terms of grades (achievement levels) that are labels for scoring bands instead of an aggregate numerical score. However, the achievement levels may not possess unambiguous articulation of what students are expected to demonstrate in order to achieve

such a level. In that context, the PSLE achievement levels would not be able to serve the function of assisting in the identification of learning gaps in formative assessment.

Conversion of academic labelling from aggregate performance across subjects to subject specific academic banding.

The PSLE achievement level reporting system remains in effect a sorting and stratification mechanism into secondary schools. In secondary schools, sorting and stratification persisted in the form of streaming into the Normal Express, Normal Academic, and Normal Technical streams, but this has been replaced by ‘Subject Based Banding’ (SBB).

The context for introducing SBB is the increased recognition over the years of the downsides to academic streaming of students into Secondary school, and its effects on (the lack of) social mixing in Singapore (Ministry of Education, 2019). The accompanying stigmatization of being assigned an inferior educational track, and the explicit use of these labels in mainstream media and everyday conversations created a strong association between a student’s educational stream and his or her identity.

The response of the Ministry was to replace streaming of students with ‘subject based banding’. Essentially, students would be streamed mostly within each subject based on their academic performance for each subject, rather than streamed into a track for all their subjects based on their aggregate PSLE score.

In terms of practical implementation, the shift to streaming students at subject level would mean that in some instances students of different academic abilities would be classed together. Multiple ability subject bands in a single class creates an unavoidable logistical and planning consequence based on scarcity of resources that means that class allocation may not always permit single homogenous ability banding. This reflects the efficiency paradigm of SBB. At the same time, multiple ability banding, connoting a more diverse student demographic, offers opportunities for social mixing. This social dimension of SBB implementation would require far more than logistical finesse in configuring timetables and curriculum for ensuring that students do not interact only within their social classes.

It is argued that SBB offers the opportunity for social mixing and integration, but also perpetuates the original problem in that education has created different social classes by sorting students in national and school assessment in the first place. In the case of Singapore, its pursuit of examination meritocracy as sorting and stratification for further educational opportunities and future economic rewards is particularly influential in constructing the value and values of learners in terms of their assessment results.

Many of these challenges emerge as a result of the type of meritocracy that is practised in Singapore. Meritocracy may be understood as existing in two broad categories – elitist meritocracy or egalitarian meritocracy (Tan and Deneen, 2015), and Singapore Meritocracy embodies tension(s) between its egalitarian and elitist strands (Lim, 2013).

Is SBB oriented towards elitist or egalitarian meritocracy for Singapore? It is argued that the initial assignment of students into ability level bands has a strong elitist meritocracy orientation, and this

is moderated by the available access for students to switch subject streams. Students who succeed in advancing to a higher ability level would flatten the vertical achievement disparities and evidence a less elitist and more egalitarian meritocratic hierarchy as a result. But students who remain stuck in lower ability bands (and access inferior further and future opportunities) would then experience the wrong end of an elitist oriented meritocracy of achievement and education in each subject. Obviously, SBB is not a magical elixir that would banish social perceptions of associating societal and educational worth with an aggregate PSLE score and the name of an educational stream. Much has to be done to ensure that stigmatizing students' identity and opportunities for success do not resurface in subject banding contexts.

An argument for student voice in assessment and dialogue as a shift from assessment reliability to learner resilience

Assessment is key to improving education and creating a necessary new normal fit for economic, social, and political purposes. This requires more than another major assessment policy reform to shift mind-sets about examinations and transform grading and scoring practices. Singapore was fortunate in not having to cancel large scale high stakes examinations because there were no national written examinations requiring invigilation of large numbers of students in the middle of the year when it implemented its lock down in April 2020. By the end of 2020, management of the pandemic disruption and a disciplined compliance with social restrictions succeeded in permitting all students to return to school, and students in graduating years to sit for their national examinations. Nonetheless, the pandemic has further highlighted equity challenges embedded in systems, and increases the urgency in addressing equitable access to opportunity, community, and building resilience in disadvantaged students and communities. The profuse use of tests and examinations perpetuates learning as quantifiable and encourages comparability between pupils, competition, and narrowed forms of learning evidences. This is still happening in Singapore with the PSLE achievement levels and subject based banding, albeit on a smaller scale. Arguably, the Singapore assessment system's orientation that emphasizes control and standardisation unconsciously promote poor quality learning experiences where young people are less motivated to learn than they are to 'pass tests'.

Whilst the Covid-19 pandemic may have led to watershed changes in schooling and learning experiences, its effect on assessment practices in Singapore is less obvious. In fact, it may be argued that the Covid-19 pandemic may not have changed Singapore Assessment and its reforms in any significant way. The stated purpose of removing mid year examinations was to reduce examination stress for pupils, and this was implemented from 2019, before the pandemic happened. Likewise, the change in the PSLE reporting of results was announced in 2016, and the move to introduce Subject Based Banding was announced in 2019.

All three reforms share the same premise that examinations, academic labelling in terms of grades, and academic streaming are all necessary, but recognises that examination meritocracy produces stress and social stratifications. The intent of the reforms is to address the social consequences of examinations by reducing its frequency and altering the language of examination performance. But in essence the primary reliance on examinations as the dominant mechanism for evaluating and reporting merit is retained.

In summary, the recent nationwide assessment reforms in Singapore have only served to entrench reliance on examination meritocracy, and it is argued that this does not suffice to prepare learners for the uncertainties and challenges in our post pandemic future. This calls for a rethink about Assessment fit for future uncertainty rather than relying on assessment being (merely) fit for the present purpose of examination preparation. It is argued that a new purpose for assessment is needed in order for individuals and systems to be resilient against future challenges. In particular for countries that emphasize high stakes examination meritocracy, much is at stake for repositioning assessment that builds the resilience of learners and communities to be fit for challenging and uncertain futures.

Tests and examinations are predicated on controlled environments, and emphasize standardization of merit and a narrowing of the curriculum. The consequential validity of such assessment is low, especially for terminal high stakes national assessment. And the Covid 19 pandemic has also questioned the feasibility of ensuring secure and safe test premises.

Various countries have been imposing social lockdowns and ramping up vaccination drives to increase collective immunity to the virus. There have also been calls for viewing the pandemic as an indicator of the need for a kinder approach to assessment; one that considers the mental well-being of students (Fuller et al., 2020). Likewise, politicians in many countries recognize and appreciate the need for individuals and communities to be resilient in the face of adversity.

I argue for post pandemic assessment purpose(s) to include building resilient learners. A key purpose of assessment should be to equip learners and their social environments to be resilient. Assessment should go beyond ensuring that tests and examinations are reliable, to be enacted in ways that develop learners' resilience. Such a shift from reliability to resilience is important for ensuring that individuals can learn from assessment to increase their academic buoyancy in their formative years, in order to ensure their mental resilience beyond schooling.

In the context of schooling and higher education, Martin and Marsh (2008) defines academic buoyancy as a student's ability to deal with academic challenges such as poor results, meeting deadlines and coping with the emotions that come with assessment stress. Academic buoyancy may thus refer to students' ability to come through ordinary challenges they face in the academic context, and it can positively contribute to students' beliefs and behaviours in learning situations. Feedback in the form of grades on performance has been reported to have a demotivating effect. Low grades have a negative impact on students' engagement with feedback; students who received low grades on their first draft were often discouraged and ignored feedback, while students who received high grades were not motivated to revise their work (Jonsson & Panadero, 2018).

Grades can thus become a barrier to productive use of feedback. Emotional responses to judgement expressed on a scale, grades, scores, or marks can trigger disappointment, and reduce students' motivation for future engagement (Kahu et al., 2015, cited in Jonsson & Panadero, 2018; Lipnevich & Smith, 2009a; 2009b). Careful attention to the affective dimensions of feedback practices in school would certainly enhance the academic buoyancy of learners, and provide psychological safety for addressing their gaps in learning. Constant and consistent academic assistance and affectively appropriate feedback helps students to increase immunity to negative feedback, and regulate their performance for continuous improvement (To, 2016). For example, a

recent study involving 845 Grade 6 Finnish students suggested that academic buoyancy supports positive expectations and adaptive behaviours in learning situations through the regulation of emotions Hervonen et al. (2020).

In contrast, resilience refers to the ability to deal with more substantial adversity and challenges such as major health issues (Millican et al., 2020), and involves “positive adaptation within the context of *significant* adversity” (Luthar, Cicchetti, & Becker, 2000, p. 543). Resilience is “the process by which individuals successfully use capabilities and resources to protect themselves against the negative consequences associated with adverse experiences” (Vanhove et al., 2016, p. 281), and this would be the vital post pandemic educational outcome that assessment can develop in our learners. Resilience is an attribute that has been previously examined in workplace contexts such as such as general business organisations (e.g. Shin, Taylor, & Seo, 2012), healthcare (e.g. Gabriel, Diefendorff, & Erickson, 2011), or the military (e.g. Lee, Sudom, & Zamorski, 2013). The nature of significant adversity would pose a challenge as well as a threat for an individual’s performance and wellbeing (Richardson, 2002). How and how well assessment feedback is provided for poor performance would certainly make a difference to the well being of learners and employees, and build resilience against significant adversity in the workplace and in life.

Assessment feedback is ideal for developing these attributes in our learners, and a distinction between the contexts for dealing with negative feedback in schools and dealing with adversities in life is useful. I would also argue for assessment feedback dialogue to construct a new social compact to replace the regeneration and perpetual entrenchment of elites in examination focused systems. In schools, assessment dialogue represents how those in power (the teacher) relates to those in compliance (the learners) on gaps and uncertainties of the latter. The hierarchy between educators and learners in schools and institutions of higher learning reflects the disparity between the political decision makers and citizens. Schools and universities therefore represent an appropriate and timely environment and opportunity for constructive dialogue to be learned.

Assessment feedback in schools may happen in contexts where the teacher is commonly in a vastly superior position of power, and such power may likewise extend to teachers’ expectations of how students should empower themselves in feedback. The alternative proposition is to consider how students may also engage internal feedback along the affective and behavioural dimensions and what makes for students’ agency in understanding what they want to compare and how they want to dialogue in making ‘comparisons deliberate and the learning that results explicit’ (Nicol & Selvairetnam, 2020, p. 18). Recognising student voice in what is important to their education, including what makes for student agency, would be vital.

Discourse on student voice has re-emerged since the millennium to reposition learners in educational research and reform, premised on the following convictions that (a) ‘young people have unique perspectives on learning, teaching, and schooling; (b) their insights warrant not only the attention but also the responses of adults; and (c) they should be afforded opportunities to actively shape their education’ (Cook-Sather, 2006, p. 359-360).

In fact, Welty and Lundy (2013) argue for student voice to be recognised as a universal right of the child, citing Article 12 of the United Nations Conventions of the Rights of a Child (UNCRC) which states that ‘States Parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the

child being given due weight in accordance with the age and maturity of the child.’ (UNCRC, 2009). It is important to recognise that having “voice” in itself is not enough, but rather what is sorely needed is for students to participate meaningfully in assessment and educational activities with and through voice. This may then pre-empt or prevent “tokenism” which refers to “the experiences of children’s views being sought by adults but not taken seriously” (Lundy, 2018). Efforts to engage students in developing their student voice may lapse into tokenism without genuine reception and responses by school leaders and teachers (Quinn & Owen, 2014).

In this respect, Lundy’s (2007) framework of participation is useful for conceptualising Article 12 of the UNCRC to ensure that students express their views, and that these views are given due weight. The framework comprises four elements and they are set out in verbatim from Lundy (2007)

Space: Children must be given the opportunity to express a view

Voice: Children must be facilitated to express their views

Audience: The view must be listened to

Influence: The view must be acted upon, as appropriate

Hence, when learners ‘speak’ in their suggestions for how they want to be assessed, teachers must correspondingly ‘listen’ (Arnot et al., 2004). Such a shift requires teachers and school to confront ‘the power dynamics inside and outside our classrooms [that make] democratic dialogue impossible’ (Ellsworth, 1992, p. 107), and to seek to use our power ‘in an attempt (that might not be successful) to help others exercise power’ (Gore, 1992, p. 59).

In the context of respecting children’s right to silence in research, Lewis (2010) argues strongly for the importance of letting the child “set the agenda, have a choice of methods, be given strategies for not answering and taking the lead about deciding when to end the interview” (p. 16).

The concept of children’s right to silence is perhaps just as important to their right to voice. Crude or excessive attempts to obtain students’ views such as intrusive survey questionnaires or posing questions to children without recognition of their reticence or even special needs may ironically stifle their feelings and views. This is worse than tokenism, particularly if children with disabilities and special needs are involved.

It is submitted that students’ right to silence is equally important to their right to have their voices heard and given due weight. This calls for a considered and calibrated approach to assessment feedback – one that encourages and ensures that students’ views about their work and learning gaps are heard and responded to appropriately with teachers’ feedback. At the same time, students may also need the option to opt out of offering their views, or opt out of complete accountability to acting on teachers feedback.

One possible approach is to have students begin and conclude the feedback dialogue process by requesting for, and then subsequently reflecting on teachers’ or peer feedback. The interactive feedback cover sheet was devised for this purpose, and introduced by Bloxham & Campbell (2010) to generate constructive feedback dialogue. It has been adopted primarily in higher education contexts, and Arts et al. (2021)’s study provided strong evidence of higher education students

benefitting from the feedback cover sheet in feedback, feed up and feed forward process learning outcomes.

The use of the interactive cover sheet in pre tertiary contexts would seem feasible, though care must be taken to ensure that its introduction for younger learners is not an exercise in tokenism. In this respect, Lundy's (2018) recommendations for detokenization in teacher-student dialogues is useful and instructive. Labelled as the "four Fs", Lundy recommends that teacher student dialogue should have *full* response, be accessible in child *friendly* ways, have a speedy initial response since children grow up *fast*, and should have *follow up*.

The feedback cover sheet is obviously not a panacea for all the contextual and relational limitations in student voice in assessment, but it does provide an impetus for students to initiate feedback dialogue on their terms, and to conclude the feedback dialogue with their words and actions. This does not simply enhance the quality and role(s) of student voice in assessment. It is also a powerful way to develop and strengthen students' assessment literacy, and build their assessment resilience in the long run.

Conclusion

The reliance on controlled environments for testing as the almost exclusive means of assessing merit did not prove to be reliable ultimately during the pandemic. The pre pandemic challenge was to build robust systems that predicated certainty, replicability and comparability. This was not enough for the pandemic response. We need to go beyond emphasizing the reliability of measures and testing, to using assessment as a primary means for building resilience in individuals and in systems.

Assessment is key to improving education and creating a necessary new normal fit for economic, social, and political purposes. This requires more than another major assessment policy reform to shift mind-sets about examinations and transform grading and scoring practices. Attention should be paid to rethinking assessment as the vital means to ensure academic buoyancy for students well being in schools, and for developing learners resilience for coping with significant adversity in the workplace and in life.

The expanded focus of assessment feedback dialogue on a meta level offer ways for those in authority (government officials and decision makers) and those in subordinated compliance (citizens) to dialogue on decisions, advice, feedback. Feedback offers a way to train a nation to intelligently and collectively respond to directives, and to feedback on such directives at the same time, in uncertain and volatile contexts. Feedback dialogue in schools may thus be a precursor and enabler of a nation's dialogue between leaders and citizens. This in turn may develop learners' capacity for democratic participation in what constitutes merit and how merit is evaluated, and broaden the narrative of merit beyond examination meritocracy. Listening to students' voice instead of merely evaluating students in terms of their examination performance would be an important first step towards shifting away from reliance on examination meritocracy. In schools, assessment feedback innovations such as the interactive feedback cover sheet are examples of concrete provision of structures and mechanisms for learners to take the initiative to frame assessment feedback dialogue. This is invaluable development of learner's assessment feedback

literacy, which develops our learners to debate and construct societal meritocracy discourse, and also instills in them greater assessment resilience for the post pandemic future.

References

- Allen, A. (2011) Michael Young's *The Rise of the Meritocracy: A Philosophical Critique*, *British Journal of Educational Studies*, 59:4, 367-382, DOI: [10.1080/00071005.2011.582852](https://doi.org/10.1080/00071005.2011.582852)
- Arnot, M., McIntyre, D., Pedder, D., & Reay, D. (2004). *Consultation in the classroom: Developing dialogue about teaching and learning*. Cambridge, UK: Pearson.
- Arts, J.G., Jaspers, M., & Joosten-ten Brinke, D. (2021) Enhancing written feedback: The use of a cover sheet influences feedback quality, *Cogent Education*, 8(1), 1-18. DOI: [10.1080/2331186X.2021.1901641](https://doi.org/10.1080/2331186X.2021.1901641)
- Barr, M. D., & Skrbiš, Z. (2008). *Constructing Singapore: Elitism, ethnicity and the nation-building project*. Copenhagen, Denmark: Nordic Institute of Asian Studies.
- Bellows, T. (2009). Meritocracy and the Singapore Political System. *Asian Journal of Political Science*, 17(1), 24 - 44.
- Bloxham, S. & Campbell, L. (2010) Generating dialogue in assessment feedback: exploring the use of interactive cover sheets, *Assessment & Evaluation in Higher Education*, 35:3, 291-300, DOI: [10.1080/02602931003650045](https://doi.org/10.1080/02602931003650045)
- Bray, M. & Lykins, C. (2012). *Shadow education: Private supplementary tutoring and its implications for policy makers in Asia*. Mandaluyong City, Philippines: Asian Development Bank.
- Cheah, Y. M. (1998). The examination culture and its impact on literacy innovations: The case of Singapore. *Language and Education*, 12(3), 192-209.
- Cook-Sather, A. (2006). Sound, presence, and power: “Student voice” in educational research and reform. *Curriculum Inquiry*, 36(4), 359-390.
- Deneen, C., Fulmer, G.W., Brown, G.T.L., Tan, K., Leong, W.S., & Tay, H.Y. (2019). Value, practice and proficiency: Teachers' complex relationship with assessment for learning. *Teacher and Teacher Education*, 80, 39-47.
- Ellsworth, E. (1992). Why doesn't this feel empowering? Working through the repressive myths of critical pedagogy. In C. Luke & J. Gore (Eds.), *Feminisms and critical pedagogy* (pp. 90–119). New York: Routledge.
- Fu, G (2010) Speech by Ms Grace Fu, Senior Minister of State, Ministry of National Development and Ministry of Education, at the PERI Holistic Assessment Seminar 2010 on Tuesday, 13 July 2010
- Gabriel, A.S., Diefendorff, J.M., & Erickson, R.J. (2011). The relations of daily task accomplishment satisfaction with changes in affect: A multilevel study in nurses. *Journal of Applied Psychology*, 96(5), 1095–1104.
- Gopinathan, S. (2001). Globalisation, the state and education policy in Singapore. In J. Tan, S. Gopinathan and W.K. Ho. (Eds.) *Challenges facing the Singapore education system today*. Singapore: Prentice Hall.
- Gore, J. (1992). What can we do for you? What can “we” do for “you”? Struggling over empowerment in critical and feminist pedagogy. In C. Luke & J. Gore (Eds.), *Feminisms and critical pedagogy* (pp. 54–73). New York: Routledge.

- Hirvonen, R., Putwain, D.W., Määttä, S., Ahonen, T. & Kiuru, N. (2020). The role of academic buoyancy and emotions in students' learning-related expectations and behaviours in primary school. *British Journal of Educational Psychology*, 90, 948- 963 <https://doi.org/10.1111/bjep.12336>
- Ho, L.C., Sim J.B.Y., & Alviar-Martin T. (2011). Interrogating differentiated citizenship education: Students' perceptions of democracy, rights and governance in two Singapore schools. *Education, Citizenship and Social Justice*. 6(3), 265-276. doi:[10.1177/1746197911417417](https://doi.org/10.1177/1746197911417417)
- Hogan, S., Chan, M., Rahim, R., Kwek, D., Khin, M. A., Loo, S. C., Sheng, Y. Z., & Luo, W. (2013). Assessment and the logic of instructional practice in Secondary 3 English and mathematics classrooms in Singapore. *Review of Education*, 1(1), 57-106.
- Jonsson, A., & Panadero, E. (2018). Facilitating students' active engagement with feedback. In A. A. Lipnevich & J. K. Smith (Eds.), *The Cambridge handbook of instructional feedback* (Cambridge handbooks in psychology) (pp. 531–553). Cambridge University Press. <https://doi.org/10.1017/9781316832134.026>
- Kahu, E., Stephens, C., Leach, L., & Zepke, N. (2015). Linking academic emotions and student engagement: Mature-aged distance students' transition to university. *Journal of Further and Higher Education*, 39(4), 481-497.
- Klenowski, V. (2009). Assessment for Learning revisited: an Asia-Pacific perspective. *Assessment in Education: Principles, Policy & Practice*, 15(3), 263 - 268.
- Lee, J.E., Sudom, K.A., & Zamorski, M.A. (2013). Longitudinal analysis of psychological resilience and mental health in Canadian military personnel returning from overseas deployment. *Journal of Occupational Health Psychology*, 18(3), 327–337.
- Leong, S.C. (2020) Elements of a Standards-referenced Assessment. In SEAB *Assessment in Singapore: Getting Ready for the 2020s* (pp. 11 – 16). Singapore: Singapore Examinations and Assessment Board.
- Leong, W.S., & Tan, K. (2014). What (more) can, and should, assessment do for learning? Observations from 'successful learning context' in Singapore. *Curriculum Journal*, 25(4), 593-619, 1.035.
- Lewis, A. (2010), Silence in the Context of 'Child Voice'. *Children & Society*, 24: 14-23. <https://doi.org/10.1111/j.1099-0860.2008.00200.x>
- Lim, L. (2013). Meritocracy, elitism, and egalitarianism: A preliminary and provisional assessment of Singapore's primary education review. *Asia Pacific Journal of Education*, 33(1), 1-14.
- Lim-Ratnam, C. (2013). Tensions in defining quality pre-school education: the Singapore context. *Educational Review*, 65 (4), 416-431. DOI: [10.1080/00131911.2012.707641](https://doi.org/10.1080/00131911.2012.707641)
- Lipnevich, A. A., & Smith, J. K. (2009a). Effects of differential feedback on students' examination performance. *Journal of Experimental Psychology: Applied*, 15(4), 319–333.
- Lipnevich, A. A., & Smith, J. K. (2009b). "I really need feedback to learn": Students' perspectives on the effectiveness of the differential feedback messages. *Educational Assessment, Evaluation and Accountability*, 21(4), 347.
- Lundy, L. (2007) 'Voice' is not enough: conceptualising Article 12 of the United Nations Convention on the Rights of the Child, *British Educational Research Journal*, 33:6, 927-942, DOI: [10.1080/01411920701657033](https://doi.org/10.1080/01411920701657033)
- Lundy, L. (2018). In defence of tokenism? Implementing children's right to participate in collective decision-making. *Childhood*, 25(3), 340 – 354 <https://doi.org/10.1177/0907568218777292>

- Lutha, S. S., & Cicchetti, D. (2000). The construct of resilience: implications for interventions and social policies. *Development and psychopathology*, 12(4), 857–885.
<https://doi.org/10.1017/s0954579400004156>
- Martin, A. J., & Marsh, H. W. (2008). Academic Buoyancy: Towards an Understanding of Students' Everyday Academic Resilience. *Journal of School Psychology*, 46, 53-83.
- Millican R., ahmed Shafi A., Templeton S., Middleton T. (2020) Using Assessment Feedback to Develop Resilience. In: ahmed Shafi A., Middleton T., Millican R., Templeton S. (eds) *Reconsidering Resilience in Education*. Springer, Cham. https://doi.org/10.1007/978-3-030-49236-6_9
- Ministry of Education. (2019). *Updates to PSLE 2021 scoring system – enabling students to progress, regardless of starting points*. <https://www.moe.gov.sg/news/press-releases/updates-to-psle-2021-scoring-system--enabling-students-to-progress--regardless-of-starting-points>
- Nicol, D., & Selvaretnam, G. (2021). Making internal feedback explicit: Harnessing the comparisons students make during two-stage exams. <https://doi.org/10.31234/osf.io/jrc6y>
- PERI Report (2009). Report of the Primary Education Review and Implementation Committee. Singapore: Ministry of Education
- Quinn, S., & Owen, S. (2014). Freedom to grow: Children's perspectives of student voice. *Childhood Education*, 90(3), 192-201.
- Rahmat, F. A. & Wong, H. M. (2017, June). *Analysing the nature of feedback in classrooms in Singapore*. Paper presented at the 7th Redesigning Pedagogy International Conference, Singapore.
- Ratnam-Lim, C., & Tan, K. H. K. (2015). Large-scale implementation of formative assessment practices in an examination oriented culture. *Assessment in Education*, 22(1), 61 – 78.
DOI: [10.1080/0969594X.2014.1001319](https://doi.org/10.1080/0969594X.2014.1001319)
- Richard Fuller, Viktoria Joynes, Jon Cooper, Katharine Boursicot & Trudie Roberts (2020) Could COVID-19 be our 'There is no alternative' (TINA) opportunity to enhance assessment?, *Medical Teacher*, 42(7), 781-786. DOI: [10.1080/0142159X.2020.1779206](https://doi.org/10.1080/0142159X.2020.1779206)
- Richardson, G.E. (2002). The metatheory of resilience and resiliency. *Journal of Clinical Psychology*, 58(3), 307–321.
- Sandel, M. J. (2020). *The tyranny of merit*. Allen Lane.
- Sadler, D.R. (1989) Formative assessment and the design of instructional systems. *Instructional Science*, 18, 119–144. <https://doi.org/10.1007/BF00117714>
- Shin, J., Taylor, M.S., & Seo, M.-G. (2012). Resources for change: The relationships of organizational inducements and psychological resilience to employees' attitudes and behaviors toward organizational change. *Academy of Management Journal*, 55(3), 727–748. <https://doi.org/10.5465/amj.2010.0325>
- Stiggins, R. J. (1995). Assessment literacy for the 21st century. *Phi Delta Kappan*, 77(3), 238-245.
- Tan, K. H. K. (2013). A framework for assessment for learning: Implications for feedback practices within and beyond the gap. *International Scholarly Research Notices*.
DOI: [10.1155/2013/640609](https://doi.org/10.1155/2013/640609)
- Tan, K. H. K., & Deneen, C. C. (2015). Aligning and Sustaining Meritocracy, Curriculum and Assessment Validity in Singapore. *Assessment Matters*, 8, 31 - 52.
- Tan, K. P. (2008). Meritocracy and Elitism in a Global City: Ideological Shifts in Singapore. *International Political Science Review / Revue Internationale de Science Politique*, 29(1), 7–27.

- Tan, K.H.K. (2011). Assessment for learning in Singapore: unpacking its meanings and identifying some areas for improvement. *Educational Research for Policy and Practice*, 10(2), 91-103.
- Tan, K.H.K. (2017). Asking questions of (what) assessment (should do) for learning: the case of bite-sized assessment for learning in Singapore. *Educational Research for Policy and Practice*, 16(2), 189–202.
- Teng, A. (2016, July 14) PSLE scoring revamp: T-score replaced by eight wider grade bands in 2021, Straits Times, Available at <https://www.straitstimes.com/singapore/education/psle-scoring-revamp-t-score-replaced-by-eight-wider-grade-bands-in-2021>
- To, J. (2016). ‘This is not what I need’: Conflicting assessment feedback beliefs in a post-secondary institution in Hong Kong. *Research in Post-Compulsory Education*, 21(4), 447-467, DOI: 10.1080/13596748.2016.1226588
- To, J. (2021). Using learner-centred feedback design to promote students’ engagement with feedback. *Higher Education Research & Development*, DOI: 10.1080/07294360.2021.1882403
- United Nations Committee on the Rights of the Child (UNCRC) (2009), General Comment no. 12, *The Right of the Child to be Heard* (CRC/C/GC/12), United Nations, Geneva, Switzerland.
- Vanhove, A.J., Herian, M.N., Perez, A.L.U., Harms, P.D. & Lester, P.B. (2016). Can resilience be developed at work? A meta-analytic review of resilience-building programme effectiveness. *Journal of Occupational and Organizational Psychology*, 89, 278 - 307
<https://doi.org/10.1111/joop.12123>
- Volante, L. DeLuca, C. Harju-Luukkainen, H. Heritage, M. Schneider, C. Stobart, G. Tan, K.H.K. Wyatt-Smith, C. (2020). Synergy and tension between large-scale and classroom assessment: International trends. *Educational Measurement: Issues and Practice*, 31(4), 21-29.
<https://doi.org/10.1111/emip.12382>
- Welty, E., & Lundy, L. (2013). A children’s rights-based approach to involving children in decision making. *Journal of Science Communication*, 12(3): <https://doi.org/10.22323/2.12030302>
- Young, M. (1958). *The Rise of the Meritocracy 1870-2033: An essay on education and society*. London: Thames and Hudson.
- Yue, L.S. and Chow, H.K. (2020) Standards-referenced Assessment. In SEAB *Assessment in Singapore: Getting Ready for the 2020s* (pp. 1 – 7). Singapore: Singapore Examinations and Assessment Board.