# Assessment Leadership for Assessment Reform

NAME: Mr Ong Ka Ming

Institutional Affiliations: Ministry of Education, Singapore

Email Address: ong\_ka\_ming@moe.edu.sg

IAEA 2014 Conference Paper Submission

### Abstract

From precedent lessons of assessment reform in Singapore and other countries, issues in assessment reform are examined. External political and social influences, the examination culture, and the pressures of accountability can prove to be impediment to the success of assessment reform. Assessment reform may also be intractable due to the historical and cultural contexts associated with assessment, as the deeply entrenched norms, values, and mind-sets of the larger society cannot be changed quickly. Two rejoinders to the intractability of assessment reform will be proposed: assessment reform needs to be in tandem with systemic change and framed as a wider educational reform; and assessment leadership is crucial in the success of assessment reform. The paper proposes that assessment leadership needs to be distributed on a systemic level to achieve successful 21<sup>st</sup> century assessment reform, and that assessment leadership can be delineated into the three different levels for teachers, school leaders, and policy makers.

Keywords: Assessment Leadership, Assessment Reform, Distributed Leadership, Sustainable Assessment.

# Introduction

Assessment reform has been underway in many countries under the rhetoric of educational reforms for decades. However, against the backdrop of accountability systems for schools and the high-stakes examinations, the reform efforts have been subdued in effect, and seemed to be intractable at times, with teachers and schools focusing on improving student achievements rather than enhancing student learning and improving learning conditions in the classroom. From precedent lessons of assessment reforms in Singapore and other countries, issues in assessment reform are examined, and two rejoinders to the intractability of assessment reform will be proposed: assessment reform needs to be in tandem with systemic change and framed as a wider educational reform; and assessment leadership is crucial in the success of assessment reform.

#### Assessment Reform

Assessment reform has been defined as "changing the procedures and processes of assessment... as a way to frame the curriculum and drive the reform of schooling" (Torrance, 2011, p. 459), and reform is based on the assumption that there should be improvements to be made to the current educational practices. Assessment is used to drive educational reform in many countries, like Australia, United Kingdom, and the United States (Darling-Hammond, 2004; Klenowski & Wyatt-Smith, 2012; Leithwood, 2012; Torrance, 2011) in the belief that changing assessment practices would revolutionise classroom practices for teachers and improve learning for students. However, education is also situated within the milieu of the political, social, economic, and cultural contexts (Berry & Adamson, 2011), and these wield considerable influence on educational policies. The complexity is compounded by the different functions of assessment, which include selection, certification, accountability, and learning. In large-scale assessments particularly, the purposes range from providing current information for monitoring the education system, decision-making about individual students, motivating students to achieve better academic results and for parents to demand higher performance, acting as a leverage for instructional change, and for certifying the achievement or mastery of individual students (McDonnell, 2005). That the selection and accountability functions of assessment have overshadowed the learning component of assessment is a familiar story of how summative assessment would eventually overpower formative assessment (Harlen, 2006). Unintended consequences of these high stakes assessments include narrowing of the curriculum, redirection of curriculum time towards teaching to the test, using drill-and-practice methods that do not aid student learning, and creating incentives for pushing low-achievers out of the school system (Berry & Adamson, 2011; Darling-Hammond, 2004; Torrance, 2011). This begs the question, how should assessment reform be framed to safeguard its success?

Internationally, there seems to be two tangential directions for assessment reform. One would be a model of standards-based reform, in the hope that integrated curriculum and assessment systems can drive up learning standards (Darling-Hammond, 2004; Klenowski & Wyatt-Smith, 2012; Torrance, 2011). Through centrally prescribed standards, schools and students would have their effectiveness and learning regularly tested, with the assumption that the learning outcomes can be objectively measured, and the quality of teaching and learning in the classroom is assumed to rise if results improved (Berry & Adamson, 2011; Torrance, 2011). The main agenda for this model of assessment reform would be monitoring results for transparency and political accountability. These reforms can be more specifically labelled as "test-based reforms" rather than assessment reforms, as they make use of largescale testing to effect changes in the classroom. In countries like the United States and Denmark, there is a belief that lacklustre results in international benchmarking tests like the Programme for International Student Assessment (PISA) were a result of a "weak assessment culture" (Berry & Adamson, 2011, p. 95). Another consequence of this model, either intended or unintended, is the creation of multi-million testing industries (Klenowski & Wyatt-Smith, 2012) that allow private enterprises increased influence and the manifestation of neoliberal quality assurance measures in the educational policy making process.

The political and social influences can be impeding on this first model of assessment reform, which often result in the need to show progress in student achievements and school improvements. The demand for accountability and transparency produces objective measurements for public scrutiny and judgement, and increasingly, assessment is seen as a mechanism for monitoring and intervening in the educational process, with an emphasis on improving teaching and learning. Public trust in numbers favours the quantitative grades over the qualitative information, but Bloxham (2009) warned that quality assurance measures would bring about detrimental effects of an illusion of confidence, time-consuming processes that delays the feedback process, and the undermining of the quality of feedback (as cited in Tan, 2011b, p.80), and in quantification, the complexities of change and the local contexts of schools are eclipsed. The issue is complicated by the "market accountability" (Darling-Hammond, 2004, p. 1050), which conflates the issues of political accountability and the socioeconomic imperatives of assessment, and is seen as a *fair* way of allocation and placement for varying preferences of students; however, this market mechanism does not ensure equity or that all students will have access to their choices. What then is the true meaning of the standards, or the "grades" being awarded? Do they primarily refer to the student achievements, or should they concomitantly also be a measure of teacher effectiveness and school performance? When assessment has to do "double duty" (Boud, 2000, p. 159) between supporting student learning and summative judgement of teachers and schools, it means that educators need to be more mindful to focus on the primary intent of the assessment reform.

A second direction undertaken, usually by education systems already embedded within the high stakes testing environment, is to inject *Assessment for Learning* explicitly into the curriculum, so that the learning can be foregrounded and brought into the central focus of classroom assessment practices (Berry, 2011). The highlights of this agenda include the more deliberate use of assessment to support teaching and learning, and the reduction of the disproportionate use of written tests and examinations. Examples of these systems include East Asian countries like mainland China, Hong Kong, Taiwan and European countries like France, Spain, and Germany (Berry & Adamson, 2011). The conceptions of *Assessment for Learning* called for a new paradigm shift to use assessment to support and inform teaching and learning in the classroom, in the pursuit of attaining higher-order learning objectives. The outcomes of these assessment reforms appear to be mixed at best, and are largely undermined by the dominance of the high-stakes summative discourse, issues of accountability, misinterpretation of the formative assessment policy, and readiness of teachers, contributing to the intractability of assessment reforms.

# Intractability of Assessment Reform

Singapore's assessment reform mirrored that of countries like Hong Kong, with the examination culture and the pressures of accountability serving as additional obstacles to achieving its goals. Various recommendations and measures were taken up, like the utilisation of qualitative assessment as part of the TLLM initiative, inclusion of Project Work as a subject for the A level examinations, Science Practical Assessment (SPA) as a school-

based assessment of students' ability to apply scientific concepts at both the O levels and the A levels, authentic source-based questions as examination items in the Humanities subjects at both the O levels and the A levels, and Holistic Assessment for primary one and two students (Tan, 2011a, 2011b). Gaps between formative assessment policy intent and outcomes remain, and Tan (2011b) recommended that assessment reform in Singapore needed to emphasize clear standards in spite of the sorting functions of the norm-referenced examinations, allow assessment to increase students' capacity for future learning, and engage students in self-assessment as an enabler for sustainable assessment.

The most intractable aspect of assessment reform would be the historical and cultural contexts associated with assessment, as the deeply entrenched norms, values, and mind-sets of the larger society cannot be changed quickly. "Assessment is necessarily contextualised and value-laden" (Klenowski & Wyatt-Smith, 2012, p. 76), and it can be argued that it is the way that these summative assessments are being used as value-judgements and the high-stakes functions associated with them that create the shortcomings of assessment. Simply looking at the results and outcomes of schools and teachers would compromise the broader aims of education, but given the pragmatic inclinations of the Singapore society underpinned by meritocratic allocation of resources and opportunities (Lim, 2013; Tan, 2011a), tangible student achievement remains paramount as a goal for most students and parents. Transcending the scepticism of students and parents would require time for teachers to embed these formative assessment practices into the classroom.

#### Desirable Assessment

What would constitute educationally desirable assessment practices that form the basis for assessment reform? It is proposed here that sustainable assessment (Boud, 2000) should be the goal of assessment reforms. Tan (2011a) pointed out that the benefits of assessment for learning are reliant on harnessing feedback as an instructional imperative to close the learning gap of students; Hattie and Timperley (2007) showed that feedback practices that focused on the processing of the learning tasks and self-regulation were most efficacious for student learning. Wiliam (2011) advocated for the activation of learners as instructional resources for one another, and as owners of their own learning. All these dovetails with the ultimate goal of using assessment for sustainable learning (Boud, 2000), and educationally desirable assessment should allow the learning to extend beyond the immediate school contexts. Sustainable assessment can also circumvent the historical and cultural contexts that hinder the reform efforts, as "it is not susceptible to being operationalised in an instrumental way" (Boud, 2000, p. 163). There is a need to question the assumption that all assessment reforms would encompass informed and educationally desirable assessment practices that can make a positive impact on the students. Deciding on what is considered desirable is a problem of power and politics; but what is desirable politically should not be conflated with what is desirable educationally, and it is imperative that assessment reform is based on educationally desirable practices.

Another underlying assumption of assessment reform is the ability of the backwash effect of assessment to influence teaching and learning, however, Torrance (2011) had suggested that harnessing the benefits of backwash is not a given. In fact, using assessment to drive educational reform is contradictory, as the epistemological origins of the passive learner who would be motivated by changing assessment practices is conflicting with the active role of the learner that Boud (2000) had identified to be essential for sustainable learning. If assessment is to drive teaching practices and raise learning outcomes, the assumption is that

students will learn what is assessed and what counts, then assessment reform will fail at the starting point as the intrinsic value of learning and change has been suppressed.

The lack of consensus on what constitutes desirable assessment (based on different countries' cases of assessment reform) and the epistemological contradictions of using assessment to drive the behaviour of life-long learning, form part of the barriers to the success of assessment reform. Assessment reform does not bring about automatic changes in classroom practices, or raise the standards and achievements of the students; they are merely opportunities for change by the whole educational fraternity. Assessment reform should be framed as a systemic reform, giving adequate professional guidance to teachers, giving teachers time and resources, providing a favourable environment for implementing formative assessment, reforming the teacher education programme, and making appropriate adjustments in existing curriculum and pedagogy. Teacher education and professional development will need to change teachers' conceptualisation of assessment, and the cultural change must start from the teachers, if assessment reform has any hope of influencing the wider society. Hence, assessment reform needs to be in tandem with systemic change and reframed as a wider educational reform.

### Clarion Call for Assessment Leadership

Many have advocated for assessment literacy to be part of the solution to assessment reform, and that assessment literacy should be part of teacher education programmes to better prepare the teachers to implement formative assessment in the classroom (Black & Wiliam, 1998a; Popham, 2009). Assessment literate teachers should have assessment-related knowledge, theory, and skills needed to effectively communicate students' learning, and the ability to develop quality assessment practices. Stiggins (1995, p. 240) went one step further and defined assessment literacy of educators to be "knowing what they are assessing, why they are doing so, how best to assess the achievement of interest, how to generate sound samples of performance, what can go wrong, and how to prevent those problems before they occur," and it means being prepared to assess the higher-order instructional goals for future-oriented education. Assessment literacy is not just about the strategies to use, or the ability to interpret the results, but also the meta-assessment capabilities to assess whether the current assessment practices are appropriate and how they can be improved. However, assessment literacy is a necessary but insufficient condition to successful assessment reform.

There would need to be a proactive driving force to explicate and implement assessment reform, and acting upon the knowledge base of assessment literacy would require assessment leadership. Just as Assessment for Learning is to enable assessment to help student learn effectively (Black & Wiliam, 1998a, 1998b), assessment leadership is defined here as Leadership for Assessment, the ability to provide vision, energy, impetus, and inspiration to conceptualise and implement effective assessment policies and practices. It is moving from the base of assessment literacy of knowing how to assess, towards the actual enactment of the quality assessment in the schools and classrooms, and the creation of opportunities to apply assessment literacy in the school contexts, no matter how difficult the circumstances. Within the functions of instructional leadership of defining the mission of the school, managing the instructional programmes of the school, and creating a positive school climate for effective learning (Hallinger, 2009), instructional leadership must include leadership in assessment (Stiggins, 2010). The coherence of assessment reform implementation requires multiple coordinated sites of action, with leadership practice stretched over formal leaders and teacher leaders from a distributed leadership perspective (Spillane, 2006; Timperley, 2005).

Spillane (2006) presented a model of distributed leadership that goes beyond delegation, and his emphasis was on the construction of leadership practice through interactions with others. He offered that in distributed leadership, "the situation defines leadership practice" (2006, p.94), and this would be invaluable in overcoming the potential barriers to assessment reform in its embedded historical and cultural contexts, and the idiosyncrasies of the individual schools. The distributed perspective of leadership recognises that leading schools requires multiple leaders, and the complexity of assessment reform means that implementing sustainable changes cannot be done through the traditional top-down leadership or by the school administrators alone (Hallinger, 2009; Timperley, 2005). Harris and Lambert (2003) proposed that empowerment, time, and professional development opportunities must be given to teachers for encouraging distributed leadership and teacher leadership in the school. Extending Spillane's (2006) concept of distributed leadership, it is proposed here that leadership needs to be distributed on a systemic level, to achieve successful assessment reform. Assessment leadership can be delineated into the three levels for teachers, school leaders, and policy makers, as outlined below.

# Assessment Leadership for Teachers

Assessment leadership for teachers can be analogous to the notion of "teacher leadership" (Harris & Lambert, 2003; Harris & Muijs, 2005). Teachers must have the requisite ability to use formative assessment in the classroom, integrate effective assessment practices into classroom instruction, interpret performance reports and student work, encourage learning with guidance or interventions, and detect deeper reasons for student difficulties. In addition, teachers must also anticipate the emotional responses to assessment (Stiggins, 2010), and allow students to participate in the assessment processes as a means to sustainable learning (Boud, 2000; Tan, 2011b). As proactive agents of change, teachers espouse assessment leadership by taking up responsibilities for developing knowledge and transforming practice: role model and share best practices in assessment, lead teacher inquiry in collaborative settings, and take the initiative to upgrade professionally with current research in assessment practices. If the aim is to develop sustainable learning for the students, teachers would need to model this attitude in their own professional learning, pushing boundaries and looking beyond preparing for the next day's lessons.

The key characteristic is that teachers have ownership of the problems and challenges facing them in implementing assessment reform, would take charge of their own learning, and set their course of action in the belief of holistic education and assessment. That said, it must be qualified that teacher would still need time to infuse assessment for learning, otherwise assessment practices would devolve into superficial exercises that focuses on test scores rather than assuring robust student learning.

#### Assessment Leadership for School Leaders

Assessment leadership for school leaders entail setting the right conditions for change in assessment through the distribution of leadership practices (Spillane, 2006), and setting up structures by design for successful implementation of assessment reform. On top of recognising the importance of assessment for learning, school leaders should have mastery of the essential assessment competencies (Stiggins, 2010), so that they can judge students' progress or gaps from expected achievement standards more effectively, and are perceived to have credibility in leading assessment (Webber, Scott, Aitken, Lupart, & Scott, 2013). The ability to interpret school results from large-scale assessments, taking into account potential validity and reliability issues or assessment bias, means that school leaders as assessment leaders can see beyond the quantitative measures of academic results, and adjust instructional practices and programmes accordingly. Moving past the view that student academic achievement is the sole information needed for school improvement, school leaders need "robust, systematically-collected information about those other features of their schools that account for student achievement" (Leithwood, 2012, p. 36). School leaders as assessment leaders initiate critical dialogues about student assessment, establish standards for high quality assessment practices, and link decision-making about student assessment to the quality of instruction (Webber et al., 2013). Professional development opportunities for teachers to enhance their assessment literacies would be provided, and assessment leadership for school leaders should also involve setting up of distributed leadership practices with sustainability of learning tenable via professional learning communities (Harris & Muijs, 2005).

The critical attribute of the school leader as assessment leader is the political will to withstand the pressures of prevalent accountability measures, and the courage to advocate for assessment for learning, making it central to teaching and learning in the school, in spite of the influence of summative examinations on students and their parents. The school leader must understand the complexities of assessment reform, anticipate potential trade-offs in implementation, overcome resistance from external stakeholders, and communicate the vision for assessment reform meaningfully to various stakeholders (Webber et al., 2013). Using Barrett's (2006) "leadership communication framework" to take into account the corporate roles of the leaders on top of the business-as-usual managerial roles, the importance of external relations and cultural literacy are highlighted as vital in communicating and persuading for assessment reform, within the local cultural context.

### Assessment Leadership for policymakers

There is a need to bring the policymakers into the realm of discourse on assessment leadership, as policymakers would be the ones who decide on the summative assessment that provides "the de facto agenda for learning" and "an authoritative statement of 'what counts' and directs student attention to those matters" (Boud, 2000, p.155). Assessment leadership for policymakers require stating "clear standards for formative purposes of assessment and feedback" (Tan, 2011b, p. 82), and an articulation of an "assessment vision" for the education system on the whole. An "assessment vision" (Cizek, 1996, p. 108) is essential for generating the shared purpose and acceptance from the public and the stakeholders, and help teachers, students, parents, and the community to make sense of the various functions of assessment. Stiggins (1995) argues that without a clear vision of what constitutes success, there would not be effective assessment of these achievement goals. The "assessment vision" would also need to explicate the form of assessment practice to enable students to develop holistically, and frame students' learning in a sustainable and coherent manner (Tan, 2011a, p. 100). Without lucidity of the assessment policies, implementation and support for assessment reform would be problematic.

One crucial question policymakers need to ask is, "Do our policies guide sound assessment practice?" (Stiggins, 2010, p.246). The various mandates, initiatives, and incentives for the assessment reform need to align and coordinate the otherwise piecemeal or even mutually contradictory policies on areas like personnel evaluation, school postings, school accountability measures, etc, to dovetail and take on a coherent and integrated approach. The assessment practices purported to be beneficial and educationally desirable have to be based on relevant and rigorous research. There would also need to be sufficient resources and support given to the schools in the implementation of assessment reform.

Similar to school leaders, policymakers face political pressures for assessment reform to be successful, and have to be concurrently accountable for the results of the schools and students. The neoliberal evaluation and quality control measures invariably undermine teachers' professionalism and discourage risk-taking by teachers. A reform premised on a reductionist approach of measurement would inhibit intended changes from happening in the classrooms, and accountability could represent a threat to trust and lead to defensive assessment practices (Carless, 2009, p. 82). The evaluation of schools as institutions should take on more holistic and diverse indicators as outcomes of schooling, and schools should be formatively evaluated for improvement rather than summatively judged with monetary or other tangible consequences, moving away from simply using an instrumentalist measure of student examination grades to a developmental approach of iterative feedback and improvement.

As Spillane (2006) cautioned, the hierarchy or the delegation of leadership does not lead to distributed leadership nor improved performance, but the emphasis should be on the nature and quality of these leadership practices that would contribute to successful assessment reform. Central to the three different levels of assessment leadership is the "strong moral purpose" (Webber et al., 2013, p. 249), and only with a strong sense of values can teachers, school leaders, and policy makers do the right thing and make educationally desirable assessment practices a school-wide and system-wide priority.

# Conclusion

Assessment reform needs to be distinguished from test-based reforms, and should advocate educationally desirable assessment practices that add value to the learning process, and inculcate sustainable learning for the students (Boud, 2000; Tan, 2011b). From the mixed results of assessment reform in various countries, assessment reform needs to be rethought, from being the main driver of educational change to be reframed as change in a background of total systemic transformation. Different countries would also need to employ different strategies to integrate the multiple functions of assessment (Black & Wiliam, 2005), and the change process is likely to be onerous and challenging. Based on Spillane's (2006) notion of distributed leadership, assessment leadership on the three levels of teachers, school leaders, and policy makers could present a plausible solution in the enactment of assessment reform. Successful assessment reforms and effective assessment practices need to be augmented by the quality of the leadership.

While the whole society is now running on these accreditation, awards, and selection processes, there is room for the reinterpretation of assessment, learning, and the meaning of grades (Cizek, 1996). Society must first accept the aim of education to be the fulfilment of self and the preparing for life, and put less of an economic premise and human-capital value to education. Tackling the unintended consequences of the high stakes does not mean that we should remove the assessment system, but to look at the education system as a whole. Bennett (as cited by Torrance, 2011, p.466) noted that "the effectiveness of formative assessment will be limited by the nature of the larger system in which it is embedded." Education reform requires reform of the anchors of educational policy, curriculum, pedagogy, assessment, teacher education and professional development. Assessment itself is a widely contested terrain, encompassed by tensions, dilemmas, and compromises, so it would be foolhardy to just focus on assessment as the only driver of the reform of schooling. Education systems need to the address the milieu within which the assessment is embedded, for assessment reform to be feasible and not intractable.

# References

Barrett, D. (2006). Leadership communication: McGraw-Hill.

- Berry, R. (2011). Assessment trends in Hong Kong: Seeking to establish formative assessment in an examination culture. *Assessment in Education: Principles, Policy & Practice, 18*(2), 199-211.
- Berry, R., & Adamson, B. (2011). *Assessment reform in education: policy and practice* (Vol. 14). Dordrecht: Springer.
- Black, P., & Wiliam, D. (1998a). Assessment and classroom learning. *Assessment in Education*, 5(1), 7-74.
- Black, P., & Wiliam, D. (1998b). Inside the Black Box: Raising Standards through Classroom Assessment. *The Phi Delta Kappan, 80*(2), 139-148.
- Black, P., & Wiliam, D. (2005). Lessons from around the World: How Policies, Politics and Cultures Constrain and Afford Assessment Practices. *Curriculum Journal*, 16(2), 249-261. doi: 10.1080/09585170500136218
- Boud, D. (2000). Sustainable Assessment: Rethinking Assessment for the Learning Society. *Studies in Continuing Education*, 22(2), 151-167. doi: 10.1080/713695728
- Carless, D. (2009). Trust, distrust and their impact on assessment reform. ASSESSMENT & EVALUATION IN HIGHER EDUCATION, 34(1), 79-89. doi: 10.1080/02602930801895786
- Cizek, G. J. (1996). Grades: The Final Frontier in Assessment Reform. *NASSP Bulletin*, 80(584), 103-110. doi: 10.1177/019263659608058416
- Darling-Hammond, L. (2004). Standards, accountability, and school reform. *The Teachers College Record*, *106*(6), 1047-1085.
- Hallinger, P. (2009). Leadership for 21st century schools: From instructional leadership to leadership for learning.
- Harlen, W. (2006). On the relationship between assessment for formative and summative purposes In J. Gardner (Ed.), *Assessment and learning* (pp. 103 117). London: SAGE.
- Harris, A., & Lambert, L. (2003). *Building leadership capacity for school improvement*. Philadelpha, Pa: Open University Press.
- Harris, A., & Muijs, D. (2005). *Improving schools through teacher leadership*. New York: Open University Press.
- Hattie, J., & Timperley, H. (2007). The Power of Feedback. *Review of Educational Research*, 77(1), 81-112. doi: 10.3102/003465430298487

- Klenowski, V., & Wyatt-Smith, C. (2012). The impact of high stakes testing: The Australian story. *Assessment in Education: Principles, Policy & Practice, 19*(1), 65-79.
- Leithwood, K. (2012). School leadership, evidence-based decision making, and large-scale student assessment. In C. F. Webber & J. L. Lupart (Eds.), *Leading student assessment* (Vol. 15., pp. 17-40). Dordrecht: Springer.
- 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.
- McDonnell, L. M. (2005). Assessment and Accountability from the Policymaker's Perspective. *Yearbook of the National Society for the Study of Education*, *104*(2), 35-54. doi: 10.1111/j.1744-7984.2005.00024.x
- Popham, W. J. (2009). Assessment Literacy for Teachers: Faddish or Fundamental? *Theory into Practice*, 48(1), 4-11. doi: 10.1080/00405840802577536
- Spillane, J. P. (2006). Distributed leadership. San Francisco: Jossey-Bass.
- Stiggins, R. (1995). Assessment Literacy for the 21st Century. *The Phi Delta Kappan*, 77(3), 238-245.
- Stiggins, R. (2010). Essential formative assessment competencies for teachers and school leaders. In H. L. Andrade & G. J. Cizek (Eds.), *Handbook of formative assessment* (pp. 233 - 250). New York: Routledge.
- Tan, K. (2011a). Assessment for learning in Singapore: unpacking its meanings and identifying some areas for improvement. *Educational Research for Policy and Practice*, 10(2), 91-103. doi: 10.1007/s10671-010-9096-z
- Tan, K. (2011b). Assessment Reform in Singapore Enduring, Sustainable or Threshold? . In
  R. Berry & B. Adamson (Eds.), Assessment reform in education: policy and practice (pp. 75 88). Dordrecht: Springer.
- Timperley, H. S. (2005). Distributed Leadership: Developing Theory from Practice. JOURNAL OF CURRICULUM STUDIES, 37(4), 395-420. doi: 10.1080/00220270500038545
- Torrance, H. (2011). Using assessment to drive the reform of schooling: Time to stop pursuing the chimera? *British Journal of Educational Studies*, *59*(4), 459-485. doi: 10.1080/00071005.2011.620944
- Webber, C., Scott, S., Aitken, E., Lupart, J., & Scott, D. (2013). Leading assessment for enhanced student outcomes. *School Leadership & Management*, 33(3), 240 255.
- Wiliam, D. (2011). Embedded formative assessment. Bloomington, Ind: Solution Tree Press.