

Article

# Embedding Formative Assessment in Blended Learning Environment: The Case of Secondary Chinese Language Teaching in Singapore

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**Abstract:** The fast global spread of COVID-19 has resulted in the mass disruption of teaching, learning, as well as assessment, in mainstream schools in Singapore. Teachers were caught unprepared and this jeopardised the quality of classroom delivery and assessment. The Ministry of Education has since shifted to an online asynchronous mode of teaching whilst attempting to keep the face-to-face method of lesson delivery, to which it is called ‘blended learning’ (BL) in the local context. Besides being propelled to learn and use new technology tools for online lessons, teachers also need to quickly explore to embed formative assessment (FA) in the new BL environment to substitute traditional classroom assessment. In this context, I argue that teachers’ language assessment literacy (LAL), pedagogical content knowledge (PCK) and e-pedagogy are vital to the success of embedding FA in BL. Following, I also describe some tentative predictions for future challenges and opportunities of embedding FA in the BL environment of secondary Chinese Language (CL) teaching in Singapore. On this basis, I discuss the ways in which current conceptualisations of language assessment literacy will need to shift in response to these challenges. Finally, I make some recommendations for practice based on this argument.



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## 1. Introduction

Assessment discourse and teachers’ assessment literacy are growing in importance and influence in both established and developing educational systems around the world in recent years as educational reforms become more intensive. For example, formative assessment (FA) has been a popular discourse in education as its potential benefit is fundamentally dependent on teachers’ willingness to make changes to their classroom practices to enhance students’ learning. These changes bring about much assessment tension, especially at the current moment when the fast emergence and global spread of the coronavirus disease (COVID-19) has resulted in the mass disruption of teaching, learning, as well as assessment, in all part of the world, including Singapore.

In my context, the Ministry of Education (MOE) has given definitions of assessment in the intranet portal site. For example:

- Formative Assessment is carried out during the instructional process to provide feedback to adjust ongoing teaching and learning in order to improve the students’ achievement of intended instructional outcome. Summative Assessment is carried out at the end of an instructional unit or course of study for the purpose of giving information on students’ mastery of content, knowledge and skills, assigning grades or certifying student proficiency [1].

Assessment terms (such as formative and summative) seem non-contentious and serve their respective specific purposes. However, assessment practice in a blended learning (BL)

environment may not be so clear-cut and may often need to perform multiple duties, which gives rise to extra tension because teachers are worried that their assessments are not able to fulfill all these duties in the new normal. These assessment experiences may turn out to be highly challenging and emotional for teachers. The issue becomes more complicated when teachers have different assessment literacy, especially in a blended learning environment that involves online, offline and face-to-face classroom teaching and assessment. Since the disastrous invasion of COVID-19, the MOE has quickly shifted to an online asynchronous (also known as home-based learning or HBL) mode of teaching whilst attempting to keep the face-to-face method of lesson delivery, to which it is called 'blended learning' (BL).

In my context, the demand for teachers' assessment literacy has always been in the limelight. In fact, it is one of the six areas of practice in the 'SkillsFuture for Educators' professional development road-map. MOE believes that teachers should be able to design and use assessment tools purposefully and effectively to diagnose and address students' learning gaps [2]. Models and principles such as the Singapore Teaching Practice (STP) and MOE Assessment Philosophy have explicitly put forward how sound assessment should be positioned and practiced in schools. STP is a model that makes explicit how effective teaching and learning is achieved in Singapore schools [3]. It is co-developed by the MOE and National Institute of Education (NIE). This model provides a common language among teachers of the varied range of pedagogies that supports holistic, positive, and constructivist forms of learning. Pedagogical Practices, which have four processes and 24 teaching areas, are the core of STP. These include positive classroom culture, lesson preparation, lesson enactment, assessment and feedback. Within the assessment and feedback process, there are three teaching actions for teachers to consider. They include checking for understanding and providing feedback; supporting self-directed learning, and setting meaningful assignments [3]. In addition, the MOE has also spelt out the key assessment messages and the six competencies (from designing, planning, communicating assessment tasks to providing feedback and administering, scoring, interpreting results) needed for teachers to carry out "Learner-Centred and Balanced Assessment" in the MOE Assessment Philosophy official document.

Situating teachers' assessment literacy in my context, at the current moment when the COVID-19 pandemic disrupts daily teaching and learning, illuminates the high standard and demand for teachers to uphold the quality of teaching in the new normal. In this paper, I argue that teachers will find it challenging to embed FA in the new BL environment. FA strategies, such as providing feedback, questioning, peer-assessment, self-assessment and formative use of summative assessment, as suggested by Black and Wiliam [4], would take a very different face and form in the new BL environment, particularly in the online learning environment. I argue that teachers' language assessment literacy (LAL), pedagogical content knowledge (PCK) and e-pedagogy are vital elements in the teaching and learning of the Chinese Language (CL) in the BL environment. Then, I further describe some tentative predictions for future challenges and opportunities of embedding FA in the BL environment. On this basis, I discuss the ways in which current conceptualisations of LAL may need to shift in response to these challenges. Specifically, I recommend Engestrom's [5] Cultural Historical Activity Theory (CHAT) as a framework for understanding how teachers' assessment literacy has been played out and how it could guide teachers to improve their assessment literacy, especially in the new BL environment. Some recommendations for practice are made based on this argument.

## 2. Blended Learning and Formative Assessment

The concept of blended learning (BL) has been popular for the past decades. However, defining BL is a tricky task as there are many forms of it in practice that may be all called BL. For example, TeachThought [6] has identified and described 12 different types of BL in practice. In my context, the MOE positioned that:

- As part of blended learning, students will learn what is prescribed by the curriculum through a mix of home-based and in-school activities, and leverage both online and

offline approaches to learning. This will provide students with more opportunities to learn at their own pace and to be empowered to take charge of their learning [7].

It was further unpacked during the 2020 Work Plan Seminar that BL has a broader conventional understanding. It goes beyond simply mixing of online and offline (classroom) elements. It may be conceptualised and operationalised as a mix of structured and unstructured; asynchronous and synchronous; inside curriculum and out-of-curriculum; distance and in-person; ICT-mediated and non-ICT mediated. In order to fully support BL, all secondary school students will receive a personal laptop or tablet for learning by 2021—seven years ahead of the original target. Such approach places an emphasis on preparing student-initiated learning, in which designated timetables and space will be provided to allow students to learn at their own pace, that is outside of the formal curriculum in schools. This new approach reshuffles the roles of the learners and teachers, as well as relationships and practices of instructional programmes in schools. In this aspect, Koc, Liu and Wachira [8] believe that teachers' assessment literacy is critical for both teachers and students in creating online and blended learning environments that are effective for teaching and learning. Teachers need to plan, identify and implement assessment strategies and methods appropriate to the new BL environment. This includes an understanding of the affordance of a variety of technology tools so that the quality and effectiveness of learning will be ensured to move learners to be independent and self-regulated. Indeed, as Ng [9] explains:

- Blending learning will not mean anything very much if the students are learning the same thing in roughly the same way, except that sometimes they sit unsupervised in front of a computer at home to learn it, rather than in a classroom! But, if blended learning is to help students develop higher capacity for independent learning and learning something beyond what is normally "covered" in the school curriculum, then that is really the future of learning in Singapore.

The above statements hint that in order to reach the desired outcome of BL of developing independent and self-regulated learners, teachers would require higher levels of instructional design (both in the classroom and online) and assessment literacy. As suggested by Andrade and Heritage [10], FA could have a direct impact to enhance learning, achievement and academic self-regulation if teachers acquire the skills and literacy because Schunk and Zimmerman [11] provided ample evidence that self-regulated learners could be nurtured through direct teaching, modeling and deliberate practice. Andrade [12] particularly points out that FA is able to help learners proceed to key self-regulated learning processes that include target setting (where am I going?), monitoring (where am I now?) and reflection (where to next?). FA sets up many opportunities to guide learners to set their learning goals, do self-checking, reflect, and make adjustment and improvement to their learning.

A simple example from the CL lesson would demonstrate this idea more specifically. Teachers could activate self-regulated learning (SRL) by helping learners plan, monitor, and evaluate their extensive reading programme. Planning may involve learners in setting specific reading goals (such as finishing reading how many fiction or/and non-fiction books for certain levels, within a given period), as well as selecting useful reading and learning strategies (e.g., using a reading log book to monitor progress or use some ICT applications to help check, acquire and record new Chinese vocabularies and phrases). Monitoring involves learners to self-check if they have read the planned volume of books and their understanding of the content, as well as to check if they have made any progress, with respect to the predetermined reading goals set at the beginning stage. In the end, the learners could assess if or not their intensive reading goals in the whole learning process were met, as well as how effective their reading strategies are during this process. The whole process from the planning stage to the final evaluation stage could be done via both online and face-to-face mode of delivery. Depending on the intent and purpose of assessment during the process, these different modes of learning via online and classroom meeting would be ideally complementary. To successfully achieve the above, teachers will need to

know the purpose and essence of FA, aware of how classroom culture and FA strategies work hand in hand to allow actionable principles of FA to be effectively implemented. This may include defining clear learning goals and success criteria; collecting and interpreting evidence of learning; closing the feedback loops and finally, take necessary actions based on the students' works [10]. To this end, teachers' assessment literacy, particularly in the area of assessment for learning and self-regulation, is critical for ensuring the success of future learning in Singapore.

In the case of CL teachers, language assessment literacy (LAL), CL pedagogical content knowledge (PCK), and e-pedagogy, would greatly enhance the effectiveness of BL in the new normal. In fact, I argue that embedding or planning FA in the BL environment required CL teachers' activation of their LAL. First, teachers would need to change their perspective on BL and assessment with technology. Second, they would need to quickly acquire the theory of BL that includes how ICT affordances could lead to more effective teaching and learning. Third, they would also need to put all these new ideas about BL and assessment in practice and assess what are some of the viable and practicable principles or ideas that will benefit students' learning.

Since Scriven [13] gave the earliest definition of formative evaluation, and Black and Wiliam's [4] influential review work on FA, many scholars had subsequently contributed to the development of FA (such as Eisner, Bloom, Hastings and Madaus [14]; Sadler, [15], Shepard [16]; Popham [17]; Black and Wiliam [18]; Heritage [19]; Cizek [20]). Although contemporary typologies of FA may have been offered [21,22], the notion of FA is still very much evolving. To this end, teachers' FA practice would be challenging as they may be chasing a "moving target" that needs to be constantly "up-to-date".

In Singapore, FA was formally introduced in 2009 with the Primary Education Review and Implementation (PERI). The main aim was to address the overemphasis on testing and examination in primary school. The Holistic Assessment (HA), which is leveraged on the principles of FA, was subsequently recommended to all primary school classrooms [23,24]. What followed was a series of professional development trainings, workshops, seminars, and forming up of Network Learning Communities (NLC) and Professional Learning Circles (PLC) to enhance teachers' competency of FA. In the case of Chinese Language, many workshops and learning opportunities were provided by teaching training institutions such as the NIE, the Academy of Singapore Teachers (AST) and the Singapore Centre for Chinese Language (SCCL).

In the latest Chinese Language Teaching and Learning Syllabus (Secondary), assessment, particularly FA, was positioned as an integral part of the teaching and learning process. In fact, the syllabus clearly introduced five core strategies that are vital to enhancing student language learning: planning assessment according to learning objectives, using multiple assessment modes to promote independent learning, using different assessment tools to check for learning, developing language competencies via integrated language assessment, and applying authentic assessment to enhance language use [25].

It is worthwhile to note that there are studies conducted by local scholars (such as Chan [26]; Leong and Tan [23]; Ratnam-Lim and Tan [24]) on teachers' experience and conceptions of FA in Singapore. For example, Leong and Tan [23] have reviewed the various education reforms and traced how FA was conceptualised and played out by Singapore schools. They observed the challenge of:

- How teachers can reconcile a possible dilemma between helping students achieve grades in tests and examinations for public accountability, and also make any new classroom assessment 'count' for student-centric aspirations, may remain a matter of policy and practical tension ([23] p. 604).

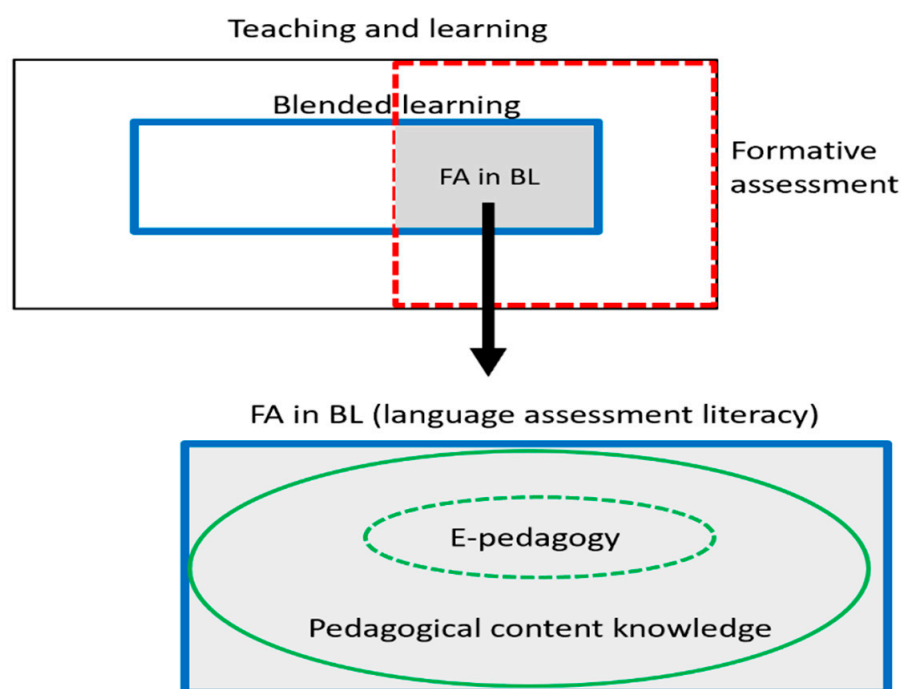
Similarly, in Ratnam-Lim and Tan's [24] study on the HA implementation in 30 Singapore primary schools, it was reported that teachers still taught to the tests, training the students to prepare for the various tests throughout the year. This attribute may be part of the contemporary Confucian-heritage context/culture (CHC) that includes Korea, China, Hong Kong, Singapore and so on. CHCs are commonly known for their "exam- and

achievement-oriented” teaching [27], use of repetitive learning [28] and a great respect for higher authority [29]. To this end, CHCs usually favour teacher-centred pedagogy, with an emphasis on academic performance in high-stake examinations, with teachers taking a great responsibility for students’ academic results [27]. Inevitably, there is much tension between summative assessment and FA in these settings, especially when there is a call for change in assessment practice towards FA. Carless and Lam [30] believe that the “exam-oriented” thinking strongly influences how assessment is approached in contemporary CHCs. They observe that summative assessment dominates to such an extent that it is difficult for FA to be established.

Nevertheless, these studies have also shown that assessment tension is prominent and that the new concepts of assessment from the ‘West’ have really challenged some teachers’ deeply-held conceptions of assessment, a similar view which was held by Black and Wiliam [4], Chan [26] and Shepard [31] in their studies.

### 3. Language Assessment Literacy with Pedagogical Content Knowledge and E-Pedagogy

Situating blended learning and formative assessment in the above-mentioned context provides an opportunity for educators to unpack what it takes to carry out FA in the new normal. I argue that teachers’ language assessment literacy (LAL) plays a crucial role in directing the quality of students’ learning and assessment experience. What exactly does LAL encompass in the new BL environment? If we conceptualise teaching and learning in general as the largest environment (represented by the large rectangle in Figure 1 below), then BL (represented by the small rectangle inside the big rectangle) may be considered as a subset within it. In the same environment, FA (represented by the dotted-line square) has always been an integrate part of teaching and learning.



**Figure 1.** Unpacking formative assessment in a blended learning environment.

Now, there is an area where BL intercepts with FA (represented by the shaded area). What does it mean to classroom teachers who have been teaching in the traditional mode of delivery? I contend that it would be teachers’ LAL at play. At this point, there is a need to first understand the concept of assessment literacy before LAL.

Since Stiggins [32] injected the concept of assessment literacy, many educators and researchers have worked around with this idea. It entails knowing what is being assessed,

why it is assessed, how best to assess it, and how to make a representative sample of the assessment [33]. He further unpacked assessment literacy in 2002 to be one that involves the understanding and appropriate use of assessment practices along with the knowledge of the theoretical and philosophical underpinnings in the measurement of students' learning [34]. To this end, many measuring inventories, such as the Teacher Assessment Literacy Questionnaire (TALQ), Assessment Literacy Inventory (ALI), Classroom Assessment Literacy Inventory (CALI), and many other revised versions of the ALI, were based on Stiggins' conceptualisation of the practical, theoretical and philosophical domains of the teachers' assessment literacy [35–43].

LAL, as a specific research discipline, has been attracting much attention worldwide in the recent decades [43–50]. Inbar-Lourie [45], when asked to address the special issue on LAL in *Language Testing* journal as guest editorial, reviewed the development of LAL since Stiggins [32] first coined the term assessment literacy. She went on to introduce five research papers that address the dilemmas evolved from conceptualising the knowledge base of LAL, each giving their views of it from different language testing contexts: from professional testers to teachers, to parliament members and university administrators. Scarino [50] sees LAL as individual self-awareness and professionalism that should include theoretical knowledge on language, language assessment, culture and learning, as well as the interplay of these knowledges and teachers' own personal (fore-)understandings of this knowledge. It is this integrated knowledge and interpretive understanding or meta-awareness, understood as complex and dynamic, that sustains the development of teacher knowledge in general and, specifically, the development of language assessment literacy ([50] p. 324). After all, this notion seems to be about ensuring the quality of students' learning by ensuring the quality of teachers' decision-making processes. As Popham [17] rightly pointed out, assessment-literate teachers make educational decisions based on appropriate assessment-elicited evidence, and these decisions will probably be more defensible because they have higher chances of improving students' learning. When juxtaposed with Lee Shulman's [51] notion of pedagogical content knowledge (PCK), the similarities between the two ideas of teachers being assessment-literate and PCK-informed are very striking.

At the backbone of sound and effective teaching, Shulman's [51] PCK can never be undermined. According to him, PCK lies at the intersection of subject content and pedagogy. It represents the blending of content and pedagogy into an understanding of how particular topics, problems, or issues are organised, represented, adapted, and represented for instruction. PCK is the category most likely to distinguish the understanding of the content specialist from that of the pedagogue (p. 8). Simply put, in the case of effective CL teaching, teachers would design and present the language content (such as listening, speaking, reading, writing, and interaction skills) in ways that are most accessible and engaging to all learners. They should know how language would be best acquired by students in the classroom by perhaps identifying the best examples with clear explanations, as well as providing an opportunity that allows students to engage language knowledge and skills in meaningful ways. In the BL environment, CL teachers ought to rethink about the 'why', 'what' and 'how' of their teaching. For example, why should there be a change in the way language lessons are conducted? What language knowledge and skills should be taught in the face-to-face lesson, and/or online mode to be most effective? How should language lessons be restructured or blended? All these questions will also affect the 'why', 'what' and 'how' of the FA that used to be carried out in the classrooms. For example, why should feedback be done differently in the BL environment? What kind of content in the curriculum should the feedback be given in-distance or in-person? How should feedback be given (via ICT or non-ICT) to ensure quality learning? To explore further, e-pedagogy may be useful at this juncture because it directly addresses the 'how' of leveraging technology to deepen and enhance students' learning. As Huang and Hung [52] has rightfully pointed out:

- To be effective designers of learning, teachers need to have the agency and competency to use various digital tools to design students' learning experience and adapt to unprecedented situations. But technology is not a silver bullet for education. Student-centred pedagogy requires teachers to be designers of learning, not just users of technology.

Truly, the many versions of design in using ICT tools and platforms to engage students during the circuit breaker period in Singapore suggested that technology remains as a tool for supporting instructional programmes. How teachers design the lesson delivery is still the core of their job. To this end, e-pedagogy, the practice of teaching using technology for engaging and effective learning, would be of paramount importance. Similar to teachers' assessment literacy, e-pedagogy has since become one of the six areas of practice in the 'SkillsFuture for Educators' professional development road-map. This would provide opportunities for teachers to deepen their design capabilities in teaching and learning in the BL environment.

#### 4. Challenges and Opportunities

The above idea of embedding FA in the BL environment may be straight-forward. However, in practice, it will be filled with challenges and tensions. As mentioned above, COVID-19 is a global crisis that disrupted many aspects of people's lives, including how daily teaching is being carried out in schools. However, in the eye of traditional Chinese philosophy, the word 'crisis' consists of two Chinese characters (危 and 机), which literally means 'danger' (危) and 'opportunities' (机). As such, the COVID-19 pandemic may not be all negative as there is optimism within crisis. How should we approach such a perspective? A simple example may give us some hints. With BL being a regular instructional mode of teaching and learning, naturally, more autonomy is given to students to decide what and when to learn at their own pace. In this case, some teachers worry that it requires more self-directed learning and discipline from students and this puts the unmotivated, less-able and disorganised group at a disadvantage. On the other hand, some teachers feel that combining online and offline teaching provides an opportunity for students who are less motivated and easily distracted in the classroom to learn better at their own pace. These two perspectives illuminate the 'danger' and 'opportunities' thinking which teachers may choose on the same phenomenon.

The above context sets up this paper to describe some of the challenges and opportunities teachers may face in the new teaching and learning environment, especially when embedding FA in the daily instructional programmes. Girons and Swinehart [53] have discussed the pedagogical and assessment challenges language teachers may encounter when working in the BL environment. These include the design, methods of delivery, group dynamics, activities, the way teachers provide input and feedback, as well as summative assessment. Particularly, as a crucial part of FA strategies, feedback (between synchronous and asynchronous, individual and group, written and oral, automatic and personalised) in the BL environment would be of paramount importance to the quality and success of students' learning. From this view, the border between traditional classroom face-to-face feedback and online feedback will be further blurred in the new normal. Teachers need to understand which mode will be more beneficial (or complementary) to the language skills learners are currently undertaking.

For example, in CL characters and vocabulary teaching, online, group and instant feedbacks are more effective. However, personalised, face-to-face, delayed feedback and discussion will be more effective for reviewing students' essay writing so that they have the opportunity to be engaged in deeper discussion with clarifications regarding the gap between the success criteria and their current essay standard. For this complex language, knowledge and skills in writing, as well as online and group feedback would not be as effective as personalised, face-to-face and delayed feedback. To this end, from this simple example, language teachers need to have a certain level of assessment literacy to ensure that FA is still as effective as in the BL environment. Borrowing Stiggins' [33,34]

notion of assessment literacy, I describe some tentative predications for future challenges and opportunities of embedding FA in the BL environment. A summary is provided in Table 1 below.

**Table 1.** Challenges and opportunities in embedding FA in BL.

Levels	Challenges	Opportunity
Philosophical	Fixed mindset: believe that changes in using ICT in FA is inherently hard and full of obstacles	Growth mindset: exploring possibility, thrives on challenge and sees failure as springboard to growth
Theoretical	FA theories as barriers in practice in BL environment	FA theories as foundational support in practice in BL
Practical	A belief and practice gap between what teachers believe and what they can do in their classrooms	Teachers' belief and practice is aligned, creating a healthy practice of FA in BL

To begin with, at the philosophical level, it will be most challenging for teachers to embed or plan FA in the BL environment if they employ a fixed mindset. These teachers may believe that changes in using technology to carry out FA is inherently hard and full of obstacles that may not be relevant to teachers' work and students' learning. Indeed, Brown and colleagues' work on teachers' conceptions of assessment [54–65] informed us that these conceptions greatly influence how teachers teach and assess students' learning in practice. Understanding how assessment is understood and experienced by the teachers is a very crucial input to design better assessment tasks and even policies [57]. Brown [55–57], having reviewed past literatures and focusing on the uses and purposes of assessment, suggests that teachers may have one of four major conceptions of assessment. They are: (a) Improvement for instruction and learning; (b) Students' accountability for learning; (c) Schools' (or teachers') accountability for students' learning; and (d) Irrelevant to the teachers' work and students' learning. Although teachers may have various conceptions of assessment simultaneously, how they understand the purpose and function of assessment is closely related to how they use FA in their classroom, including in BL environment. On the other hand, if teachers employ a growth mindset and view embedding FA in BL as an opportunity, then they will explore possibility, thrive on challenge, and see attempts and failures of embedding FA in the BL as a springboard to growth in future.

Educational theories or theoretical frameworks usually try to explain or justify some facts, give clear definitions and spell out the elements, as well as their relationships within. To this end, theory could assist teachers to unpack, understand and critically reflect on education issues that influence their classroom practices. Theories also help to organise the facts in ways that create a context for people to understand some complex phenomena or practices. It is, therefore, important to recognise the role theory can play in educational research and practice. In the case of assessment, Black and Wiliam [66], among others, have discussed the theory of FA. They wanted to provide a consolidated basis for the many assessment practices which are claimed to be FA. Consolidating and building on the works done by Black et al. [67], Black and Wiliam [66], Ramaprasad [68], Wiliam [69,70], Wiliam and Thompson [71], and Black and Wiliam [66] presented a theory of different aspects of FA, as shown in Figure 2 below. Simply put, drawing on Ramaprasad's [68] three key processes in teaching and learning, together with the three different agents (teacher, peer, learner) in assessment, a theoretical framework was formed. Refer to Figure 2 below. To this end, FA can be conceptualised as consisting of five key strategies [66].



	Where the learner is going	Where the learner is right now	How to get there
Teacher	1 Clarifying learning intentions and criteria for success	2 Engineering effective classroom discussions and other learning tasks that elicit evidence of student understanding	3 Providing feedback that moves learners forward
Peer	Understanding and sharing learning intentions and criteria for success	4 Activating students as instructional resources for one another	
Learner	Understanding learning intentions and criteria for success	5 Activating students as the owners of their own learning	

Figure 2. Aspects of FA ([66], p. 8).

The above theory of FA would have opened up new opportunities and ways of directing teachers to implement FA more precisely and effectively. Despite the fact that there is no shortage of work written on the relationship between theory and practice in teaching and assessment, in my context, some teachers seem to continue to cling to a thinking that theory is puzzling “jargon” that has nothing to do with their daily undertakings in schools. This would be challenging, especially in the new BL environment, when it requires teachers to explore ways in which FA could better support students’ learning.

At the practical level, apart from teachers’ mindset and theoretical knowledge, the actual implementation of FA in BL environment depends on how comfortable and competent teachers feel towards embedding FA in this new normal. This may implicate teachers’ belief and practice alignment in carrying out FA in the BL environment. After all, there is a need to change their current assessment practice that naturally brings along much assessment tension. There may be two simple scenarios. The first would be an opportunity as teachers’ belief and practice is aligned, creating a healthy practice of FA in the BL environment. The second would be challenging as there is indeed a belief and practice gap between what teachers believe and what they do in their classrooms. Kozma [71,72] has earlier proposed a context framework of the three concentric levels that would affect and mediate changes to teachers’ classroom practices—the micro, meso and macro levels. With reference from CL teachers in Singapore, the micro level may point to individual and classroom factors that include teachers’ LAL, as students’ willingness to embrace FA in the BL environment. The meso level may point to outside classroom factors that may include school leadership, support and climate of embedding FA in the new normal. Finally, the macro level may point to the distal factors that do not affect the classroom assessment directly. These may include the general education system, the assessment culture and policy (such as the Bilingual Policy) and new initiatives in teaching, learning and assessment.

In all, schools in Singapore have been reacting to COVID-19 and teachers are coping with the new normal. However, I believe the system could also capitalise on the opportunities that accompanied this crisis. In fact, teachers should seize the opportunity to reflect and perhaps change some of their FA practice with much intent and purpose, together with some caution and an optimistic outlook. Based on the good track records of how Singapore teachers deal with uncertainties and educational changes in the past decades, there is much potential for such a claim.

## 5. Recommendations and Conclusions

In this paper, I discussed how embedding FA is necessary under the current local context when COVID-19 has resulted in the mass disruption of teaching with BL becoming a new normal. With this backdrop, I argued that teachers’ LAL, PCK and e-pedagogy are

most crucial to the success of embedding FA in BL. I then made some tentative predictions for future challenges and opportunities for teachers to carry out FA in the BL environment of secondary CL teaching in Singapore. On this basis, I would like to suggest that the current conceptualisations of LAL will need to shift in response to these challenges. As briefly mentioned above regarding teachers' LAL, Scarino [50] sees LAL as individual self-awareness and professionalism, and on the other hand, O'Loughlin [48] and Pill and Harding [49] depart their views from the individual and traditional language testing circles and shift to the stakeholders and policy-makers [45]. On this basis, I argue that framing LAL from the perspective of individual awareness or stakeholders and policy-makers fall short of comprehensiveness to fully understand the nature of LAL, the practice by the teachers, the challenges and opportunities presented in the new normal due to the COVID-19 pandemic.

Alternatively, I recommend that Engeström's [5] Cultural Historical Activity Theory (CHAT) provides a useful framework for understanding how CL teachers' assessment literacy has been played out and how it could guide teachers to improve their LAL more effectively in Singapore, especially in the new normal. Understanding CL teachers' AL should be grounded in a complex sociocultural and historical context, rather than on the individual. In this regard, CL teachers' LAL should be understood as a dynamic activity system which involves multiple participants (students, teachers, parents, school leaders, policy-makers etc.). CHAT demonstrates how a wide range of elements or agents work together to impact the development and improvement of CL teachers' AL and practice in Singapore. To this end, this paper recommends that the CHAT has the potential to contribute to understanding of the strong influence of sociocultural factors on CL teachers' AL and eventually to better inform how sound approach may be recommended to enhance it.

To sum up, besides exploring LAL, PCK and e-pedagogy in helping teachers implement FA in the BL, the COVID-19 pandemic has reminded teachers to re-examine the "why" and "what" of learning. There are many factors, both local and global, that propel teachers to change their practice from the traditional academic content and spoon-feeding to self-regulated and lifelong learning. This is not charting a new direction, but the new normal accelerates its importance and pace as well as posing important questions for educators and teachers to reflect on assessment system and practice.

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