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## Understanding Assessment as Learning in Writing Classrooms: The Case of Portfolio Assessment

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### ABSTRACT

In response to global assessment reforms, using assessment for learning (AFL) in various education jurisdictions is on the rise. However, using assessment as learning (AaL) appears to enjoy a low profile in language learning in general and in L2 writing in particular. To this end, the paper intends to describe what AaL is in relation to AFL, argue for its pedagogical values when applied in L2 writing classrooms, and propose suggestions on how to include AaL into existing curriculum and policy. The paper has three constructive outcomes. First, it provides scholars with a unifying and explicit notion of AaL. Second, it adds new insights to research that AaL is theoretically sound and pedagogically viable in the writing assessment landscape. Third, AaL is considered a much-needed twenty-first century study skill for life-long learning.

The paper is structured into five sections. The first part introduces the origin, features, purposes of AaL in relation to AFL, followed by the aim of the paper. The second part discusses the theoretical underpinnings of AaL using the theories of formative assessment and self-regulated learning, emphasizing the significance of internal feedback in learning writing. The third part delineates various writing assessment trends, depicting a paradigm shift from large-scale to individualized assessments. The fourth part adopts portfolio assessment of writing as a case, describing its definition, application, characteristics and examples of putting AaL into practice, and addressing issues when portfolio assessment is utilized to promulgate AaL. The final part of the paper revisits whether the goals of the paper are fulfilled, and proposes how to improve teaching and learning of writing by synergizing assessment of learning (AoL), AFL and AaL.

**Keywords:** assessment as learning; assessment for learning; self-regulated learning; classroom-based assessment; L2 writing

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## Introduction

Assessment as learning (AaL) is generally considered a sub-set of assessment for learning (AfL). It can be broadly defined as learners' capacity to reflect upon their works-in-progress relating to personal, academic goals or assessment criteria (Berry 2008). The arrival of AaL was derived from Earl's (2003) work on how teachers use classroom-based assessment to enhance student learning under the influence of assessment reforms. As Earl (2013) has explained, AaL, as parts of AfL, equips students with awareness, knowledge and skills to become critical thinkers, independent learners, and self-monitoring assessors. Unlike AfL which is mainly teacher-led, AaL mostly counts on learners' dispositions and abilities to develop their metacognition to set goals, monitor and evaluate prior learning with internal feedback in order to generate new learning (Earl & Katz 2008). To conceptualize AaL, it has the following characteristics. AaL capitalizes on a learner's thinking, feelings, actions and motivation as resources for regulating processes of learning. It emphasizes learner active participation in evaluating and accordingly reconstructing knowledge of a particular discipline with or without teacher guidance. AaL seldom involves grades or marks, but encourages dynamic application of metacognitive awareness, knowledge and strategies in reviewing works before and/or after submission. Besides, AaL is personal, ongoing, reflective, and self-initiated although certain programs may impose stringent requirements on learners when they engage in AaL practices, namely demanding concrete improvement plans after self-reflection.

Regarding the purpose of AaL, its role is to support learning with a focus on reflection. Although AfL serves a similar purpose, it underscores interactive pedagogical approaches that inform teaching and learning with useful assessment information including both internal and external feedback. In research, AfL and AaL have commonality and differences. In view of similarity, they are formative, spontaneous, developmental, informal, non-graded and usually unplanned (Clark 2012). For differences, AfL is public as it is about formative interactions taking place in everyday classrooms (Black & Wiliam 2009), whereas AaL tends to be private when a learner engages in reflection (Yancey 1998). Another discrepancy is that AfL focuses on utilizing multiple sources of feedback to inform the overall teaching and learning process, while AaL largely relies on learner internal feedback. In brief, AaL has built upon the theoretical basis of AfL, and they are somewhat analogous both in theory and in practice. The aims of this paper are threefold, including providing a unifying notion of AaL; developing renewed understanding of the pedagogical values of AaL via a case of writing portfolio assessment; and offering constructive advice on incorporating AaL into current language curriculum and policy. The subsequent section discusses the two theories which underpin the construct of AaL.

Table 1: Aspects of formative assessment (Adapted from Black and Wiliam 2009: 8)

	<i>Where the learner is going</i>	<i>Where the learner is right now</i>	<i>How to get there</i>
<b>TEACHER</b>	1. Clarifying and sharing 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
<b>PEER</b>	Understanding and sharing learning intentions and criteria for success	4. Activating students as instructional resources for one another	
<b>LEARNER</b>		5. Activating students as the owners of their own learning	

## Theoretical Basis

In this section, I will unpack two major theories. The first one is formative assessment and the second self-regulated learning. In this paper, formative assessment is broadly defined as helping students to regulate their learning independently, whereas AfL is more about effective pedagogies which help improve teacher and learning at the classroom level. Yet, both formative assessment and AfL view feedback, be it internal or external, as a central component for closing student learning gaps. Since Black and Wiliam's (1998) meta-analysis study was published, formative assessment has been criticized lacking a unifying definition and an explicit theory, which support its wider implementation in school. Because of this, drawing upon Wiliam and Thompson's (2007) aspects of formative assessment, Black and Wiliam (2009: 9) have developed a framework for formative assessment, highlighting formative interactions in the context of learner-centered pedagogy. In Wiliam and Thompson's (2007) original paper, there were five activities leading to uptake of feedback information, which facilitates a transition from (i) where the learner is going; (ii) where the learner is right now; to (iii) how to get there (see Table 1) by:

1. clarifying and sharing learning intentions and criteria for success; (teacher)
2. engineering effective classroom discussions and other learning tasks that elicit evidence of student understanding; (teacher)
3. providing feedback that moves learners forward; (teacher)
4. activating students as instructional resources for one another; (peer) and
5. activating students as the owners of their own learning (student)

From the above, activity numbers 1 – 3 are teacher-led and primarily depend on teacher pedagogy, whereas activity numbers 4 – 5 are student-led, drawing upon students as resources for advancing learning including peer review, self-assessment and self-reflection. Based upon these aspects, Black and Wiliam (2009) proposed four principles, among which B and C became the core conceptualization of formative assessment:

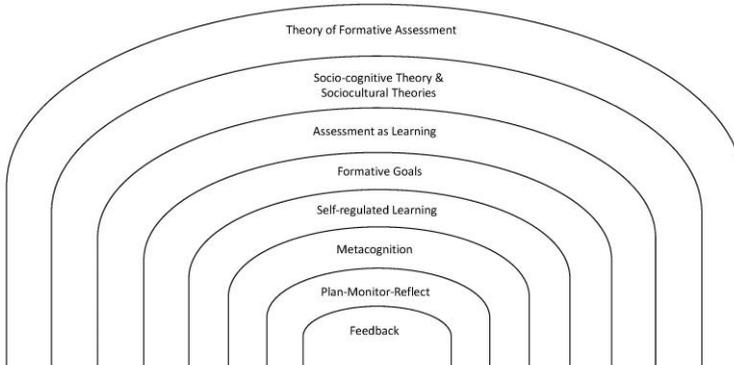
- A. teachers, learners, and subject discipline
- B. *the teacher's role and the regulation of learning\**
- C. *feedback and the student-teacher interaction discussed in terms of levels of feedback, the fine-grain of feedback and differentiation\**
- D. the student's role in learning

The first three activities of Wiliam and Thompson's aspects of formative assessment (numbers 1 – 3) dovetail with Principle B pedagogically, since teachers play a pivotal role in communicating learning outcomes with students explicitly and creating optimized opportunities for them to improve their learning. Besides, generating external feedback which helps students to close their learning gaps is likely to be the teacher's responsibility if formative assessment practices aim to adjust learning and provide positive impact on students (Swaffield 2008). Principle C is about dynamic use of feedback, including both external (peer and teacher) and internal (self) ones, and emphasis on 'formative interactions' which involve self-regulation and co-regulation of learning

processes via feedback. The idea of formative interactions fits in Wiliam and Thompson's category of activities (numbers 3 – 5). However, Perrenoud (1998) posited that formative interactions required specific design of learning intentions and assessment tasks, which could cater for diversity, otherwise the formative feedback produced during these interactions became useless to enhance student learning. Perrenoud (1998) further pointed out that formative assessment was not only limited to constructive pedagogical practices, but it also focused on how to help students regulate their learning through teachers' instructional input, such as revisable written feedback and provision of situated learning that promoted high-order thinking skills, such as goal-setting.

Returning to Black and Wiliam's (2009) theory of formative assessment, regulation of learning and formative feedback are the most relevant to AaL. In their theoretical frame, regulation of learning refers to self- and co-regulation of ongoing learning processes using external and internal feedback. Formative feedback points to planned or spontaneous classroom interactions which scaffold student learning (Wiliam 2011). As a subset of formative assessment practices, AaL requires students to take up responsibility to plan, review and evaluate their learning independently although teacher guidance is, at times, indispensable. Furthermore, feedback is at the heart of AaL, since external formative feedback (from peers, teachers or other resources) is probable to trigger internal feedback that regulates learning (Lam 2016). In brief, AaL hinges upon student active regulation of their learning by constructive feedback information generated during everyday instructional events, which is one of the key features of formative assessment. In this sense, AaL is evidently supported by the theory of formative assessment. In the next paragraph, I will discuss how AaL is theoretically backed by the theory of self-regulated learning.

Figure 1: Conceptual frame of formative assessment (Adapted from Clark 2012: 207)



To explain the relationship between formative assessment and self-regulated learning, Clark (2012) has claimed that self-regulated learning is one major attribute of formative assessment, which conceptually aligns with Perrenoud's (1998) argument as discussed earlier. In Clark's concentric figure of formative assessment (see Figure 1), feedback is at the center of the circle. The second circle includes self-regulatory strategies, such as planning, monitoring and reflection. The third circle represents metacognition, which commonly equates to thinking about thinking. The fourth circle is self-regulated learning. Formative goals constitute the fifth outer circle. Then, the sixth circle embodies AaL. Another two outer circles encapsulate socio-cultural/socio-cognitive theories and theory of formative assessment respectively. From the figure, feedback refers to student internal feedback generated by a range of metacognitive processes, namely planning, monitoring, self-assessment and self-reflection. Yet, this internal feedback would not

automatically convert into AaL nor AfL practices unless students are empowered to self-regulate their learning independently. As suggested by Nicol and Macfarlane-Dick (2006), teachers and scholars are advised to hold an organic view of feedback as opposed to the transmissive view, because feedback remains worthless if students have no opportunities to interpret, evaluate and act upon it proactively. Likewise, Butler and Winne (1995: 246) argued that for all self-regulated activities to take place, feedback was an essential catalyst. In other words, internal feedback and self-regulated learning have a close relationship in the contexts of AaL and AfL.

While AaL is theoretically situated in the notions of self-regulated learning and metacognition, not every student possesses the ability to self-regulate nor becomes motivated to perform self-reflection (Lam 2014). Therefore, teachers can consider providing students with instructed scaffolding about self-regulated learning, such as coaching metacognitive strategies (planning, monitoring and revising), and skills in using feedback information to close the learning gaps. Despite this instructed self-regulated learning, teachers avoid extorting students to comply with success criteria uncritically, otherwise AaL are merely turned into rituals of criteria compliance, which are likely to replace learning (Torrance 2012). Similarly, Paris and Paris (2001) argued that the transmissive view of self-regulated learning only promoted conformity to instructed self-regulated learning strategies taught by the teacher. Thus, students are given no autonomy to develop self-regulatory capacity and were only 'regulated' by others. In fact, Paris and Paris advocated the developmental view of self-regulated learning, in which students were nurtured how to direct their own learning based upon initial instructional guidance alongside their self-discovery journeys. This kind of scaffolding should gradually be withdrawn once students are able to self-regulate on their own.

In AaL, students are expected to be actively engaged in the monitoring processes via self-assessment and self-reflection to promote learning. These processes require students to acquire (1) knowledge of cognition and (2) regulation of cognition (Earl & Katz 2008). Though students may be motivated to self-monitor their learning, they need to possess the same evaluative capacity comprising the above (1) and (2) components similar to those of an expert or a teacher in order to adjust their learning trajectories. Sadler (1989, 2010) called this metacognitive capacity as *guild knowledge*, without which students are unable to reach the desired levels of performance even after performing self-regulation. In a similar vein, Hawe and Dixon (2014) have demonstrated that without coaching primary-level pupils to develop evaluative and productive expertise, they could not perform self-reflective practices to enrich their writing properly. After all, nurturing students to develop knowledge of cognition and regulation of cognition is indispensable if we want to fully introduce AaL in classroom contexts. Taken together, self-regulated learning underpins the idea of AaL, which is an active, personalized and constructive process enabling students to be critical evaluators of their own learning (Pintrich & Zusho 2002). AaL also involves students in regulating their learning, through which, internal feedback is generated to control how to close the learning gaps cognitively, affectively and strategically. The ensuing section will delineate evolving trends in writing assessment with regard to AaL.

### **Trends in Writing Assessment**

In writing assessment, Yancey (1999) categorized its past and current development using a 'wave' metaphor. According to her, the first wave of writing assessment happened during 1950-1970, taking the form of objective tests (mostly multiple-choice questions in large-scale standardized tests). In 1970-1986, Yancey said that the second wave took the center stage when holistically scored essays were used to measure student writing ability directly. The third wave started in 1986 and has lasted until now, promoting portfolio-based and programmatic assessment.

Although Yancey (1999) built upon her categorization with research evidence,

Hamp-Lyons (2002) rebutted that the sequence of these three waves of writing assessment was problematic. It is because essay testing had a much longer history in ancient China (back in 960-1280 A.D.) than objective tests. In Hamp-Lyons's (2002) categorization, she proposed that essay testing precedes indirect testing of writing (i.e., multiple-choice questions), followed by the rise of portfolio assessment in the mid 1980s. Albeit this intellectual debate, Yancey (1999) acknowledged that the sequence of various writing assessment trends tended to overlap and did not emerge in a linear fashion.

Over the past five decades, it appears that the paradigms of writing assessment have been steadily evolving, namely from psychometric, to teacher-based and later individualized paradigms (Lam 2018a). The psychometric paradigm emphasizes scoring reliability and indirect measurement of writing ability in order to warrant fairness. For this measurement-driven paradigm, consistency in scoring and maintenance of objectivity are two key concerns. The teacher-based paradigm promotes contextualized writing assessment using direct writing tests holistically scored by test-takers' teachers. This paradigm has implied a closer connection between the test measurement community and composition community. As to the individualized assessment paradigm, students are at the center of the assessment process and actively engaged in goal-setting, monitoring, evaluating and revising (Lee 2016). These metacognitive processes impeccably align with the theoretical idea of AaL. The advent of individualized assessment paradigm is commensurate with the latest assessment reform initiatives, which advocate students to develop critical thinking, learning-how-to-learn ability, problem-solving skills and self-reflective capacity (Curriculum Development Council 2017). In the next paragraph, I further describe the three paradigms of writing assessment in areas of learner/teacher roles, test content, test format, instructional approach, scoring of test and test use.

In the psychometric paradigm, learners serve as test-takers, whereas teachers have no involvement in assessing their students. Most objective tests evaluate discrete skills in writing, including grammar rules, mechanics and vocabulary. Higher-order thinking skills are not tested by objective tests. Since the test format of objective writing tests is highly restricted and standardized, these tests are contrived, inauthentic and may not be relatable to everyday language use. When preparing students for these objective tests, teachers tend to adopt a teach-to-the-test approach (Stiggins 2014). Scoring of objective tests is norm-referenced, implying that a student performance is compared with the other's to arrive at a normal distribution of various percentiles. Unlike the psychometric tradition, students become co-constructors of knowledge, and teachers serve as students' assessors in the teacher-based assessment paradigm. Test content and format follow contextualized school-based curricula, which feature applications of transferrable learning skills. Higher-order thinking skills are tested over an extended timeline. Teacher-based assessment takes many different forms, including quizzes, essay tests and project works. Because of this, most teacher-based assessment tasks are authentic, simulating genuine communications in writing (Davison & Leung 2009). Teachers are advised to utilize a learner-centered approach (e.g., AfL practices) while coaching students to prepare for the assessments. Scoring of these classroom tasks is mainly criterion-referenced, indicating that a student performance is evaluated against rubrics not their peers. For the individualized assessment paradigm, students are viewed as self-regulated learners and teachers as their advisors. Since test content focuses on metacognitive skills and requires students to perform self-assessment and self-reflection, these writing skills can benefit student future learning. Test format is highly personalized. Teachers are likely to adopt a reflective approach, guiding students to review learning by certain metacognitive strategies. Scoring of reflective tasks is ipsative-referenced, encouraging students to compare their current performances with their early ones. Among the three, the *individualized assessment paradigm* resonates with the characteristics of AaL, which promote uptake of key metacognitive strategies to close student learning gaps relating to set goals and/or success criteria. In the following, using portfolio

assessment as a case, I describe its definition, application, characteristics, and practical examples in connection with AaL, and examine three emerging issues when portfolio assessment is used to promote AaL in L2 writing classrooms.

## The Case of Portfolio Assessment

### *Definition and application*

Portfolios are traditionally defined as a leather case, which contains a professional's works, including blueprints, photos, manuscripts, case studies, and plays. In education, a learner's artifacts can be organized by web-based platforms, namely *Mahara* e-Portfolio System or virtual learning environments, such as *Moodle*. No matter how and where these artifacts are kept, portfolios are typically used to showcase a learner's efforts, development and achievements over time (Genesee & Upshur 1996). In L2 writing, portfolios are broadly defined as a classroom-based tool, which facilitate students to regularly compile and reflect upon works-in-progress in order to enhance their writing experiences and academic achievements (Weigle 2002). Similar to other instructional approaches, portfolios serve learning and grading functions mostly concurrently. The former aims to support student writing, whereas the latter evaluates student learning for certification and accountability. If used for its measurement purpose, portfolios are called portfolio assessment although in literature, portfolio assessment usually encapsulates its pedagogical and measurement properties. Owing to their pedagogical merits, portfolios are commonly viewed as a prominent form of AFL practices (Klenowski 2010). Further, central to the notion of AaL is choice, learner agency and reflectivity, which conceptually align with the major qualities of portfolio assessment (Yin 2014).

Considering its application, portfolio assessment divides into (1) classroom-based assessment; and (2) large-scale standardized testing. Classroom-based portfolio assessment is conceptually derived from process pedagogy, which encourages teachers to coach and evaluate student writing over time. In the US, portfolios were first introduced as a substitute to replace one-off essay testing in evaluation of proficiency (Elbow & Belanoff 1986). Since then, portfolios have been widely applied at diverse educational levels, namely from elementary to tertiary sectors (Burner 2014) and at the programmatic level (Song & August 2002). In fact, the rise of portfolio assessment in L1 and L2 classroom contexts has indicated that practitioners perhaps dissatisfy with the negative impacts of impromptu essay testing on learning (e.g., anxiety and demotivation), and observe the limitations of product-based instruction, which render students restricted opportunity to think critically about their writing trajectories (Lam 2017). Hamp-Lyons (2007) has argued that portfolio assessment is pedagogically beneficial to synergize assessment and learning of writing, because teachers can play a dual role to formatively support students' writing with actionable feedback while summatively assess their writing with grades or marks. Since self-reflection is a core component of the portfolio approach, the application of AaL in portfolio-based assessment becomes spontaneous, unobtrusive and legitimate. After all, AaL empowers students to acquire pertinent knowledge and skills in coping with learning challenges beyond graduation (Dann 2014).

When portfolios are used for large-scale standardized testing, its learning-oriented properties are likely to be sacrificed, including feedback for learning and acquisition of self-regulated learning. In the US, the state-wide implementation of portfolio assessment of writing, mathematics and language arts at Grades 4, 8 and 12 in Pittsburgh and Kentucky were proven to be unsuccessful as the inter-rater reliability of portfolio scoring remained low and controversial (Koretz 1998). In the UK, Australia and Hong Kong, portfolio assessment has been a part of public examinations in several subjects such as English literature and visual arts, and is considered a major component of

school-based assessment, through which AaL practices are promoted pedagogically (Hamp-Lyons 2002; Lam 2018a).

In Europe, the European Language Portfolio, a large-scale e-portfolio platform, has been in place since 2001 to promote self-regulation, plurilingualism and intercultural competence. By 2007, Curtis (2018) has reported that nearly 600,000 learners attempted or used the European Language Portfolio regularly. Nonetheless, Becker (2015) has argued that the European Language Portfolio was not widely utilized in practice throughout Europe and not welcomed by ELT practitioners. There are two major stumbling blocks which impede a wider application of the e-portfolio system, including (1) dominance of textbook use and (2) teacher-centered lesson organization. For the reason (2), students were deprived of self-reflective moments to monitor their language learning and nurture metacognitive capacity deemed to be essential in AaL. In the succeeding part, I will delineate the characteristics of writing portfolio assessment.

### *Characteristics*

As an approach to alternative assessment, writing portfolio assessment embraces authenticity, diversity, and complexity in evaluating student writing under more than one setting, one genre, and one source of support (Hamayan 1995). These unique attributes enable students to simulate authentic written communications, improve writing ability over time, cultivate a holistic view of learning writing, and develop high-order thinking and composing skills while engaging in the interactive portfolio process (Coombe, Purmensity & Davidson 2012). In their theoretical framework, Hamp-Lyons and Condon (2000: 122) proposed nine fundamental characteristics of portfolio assessment. These characteristics include (1) collection, (2) range, (3) context richness, (4) delayed evaluation, (5) selection, (6) student-centered control, (7) reflection and self-assessment, (8) growth along specific parameters and (9) development over time. While these characteristics are essential in their own right, Hamp-Lyons and Condon (2000) emphasized that not every portfolio system might include all of the above aspects.

*Collection* is about the compilation of multiple artifacts, such as interim and final drafts. *Range* suggests the inclusion of a broad range of genres, which showcases a student's ability. *Context richness* refers to the extent to which students bring in their experiences to portfolio assessment. *Delayed evaluation* allows students to revise their works regularly. This characteristic can pair up with (9) *development over time* as students are given an extended timeline to improve their writing without the interruption of summative evaluation. *Selection* encourages students to strategically choose their best works for grading and celebrating achievements. This characteristic aligns with (7) *reflection and self-assessment*, in which students are scaffolded to make informed decisions about the quality of their portfolio works. *Student-centered control* deals with active learner agency and learner independence. *Growth along specific parameters* indicates student learning progress relating to personal goals and assessment criteria.

Among these nine features, Hamp-Lyons and Condon (2000) pointed out that *collection*, *reflection*, and *selection* are indispensable elements in all portfolio-based programs, since they capture the spirit of AaL which underscores metacognition in action. They further claimed that collection and selection are highly associated with reflection, through which students evaluate their works-in-progress by internal and external feedback in the portfolio process. Yet, Lam (2018a) argues that the fourth characteristic - delayed evaluation should be added to the collection-reflection-selection sequence to make the portfolio process formative-oriented, motivating and sustainable, in a way that students are able to monitor their writing development with enhanced autonomy, and move their learning forward with AaL practices - reflection and selection - more productively. To connect the above four crucial characteristics, internal feedback is considered a catalyst, which lubricates the portfolio process seamlessly by initiating self-regulation to facilitate the learning of

writing (Hawe & Dixon 2017). In the portfolio process, feedback, particularly internal, plays a crucial role in closing the learning gaps that exists between students' current and desired levels of performances. Although this internal feedback may not necessarily bring about immediate improvement, it helps raise students' awareness of the qualities of good work, and gradually develop comparable expertise close to the teachers' (Sadler 2010). On this note, an overall characteristic of portfolio assessment is said to be formative-oriented and self-regulatory, which encapsulates the spirit of AaL - using feedback to inform the teaching and learning of writing in classroom settings. The ensuing section illustrates how AaL works in practice within a portfolio-based environment and gives examples of how learners acquire the skills necessary for reflective thinking and self-monitoring procedures.

#### *Putting AaL into Practice*

To assist students to practice AaL in portfolio-based classrooms, teachers can encourage them to self-monitor their writing development regularly, persistently and systematically through semi-structured self-assessment forms. Once students get used to self-monitoring their learning, teachers can use more open-ended self-assessment forms, journal entries with prompts, and double-entry writing logs which record both learning events and reflective moments simultaneously. Second, teachers may consider adopting rubric-referenced assessment tasks, which simulate those of school-based or large-scale writing assessments. By so doing, students are likely to cultivate an increased awareness of *what* and *how* they are assessed after having a close study of related assessment rubrics. With these rubrics, students can put assessment expectations in perspective and accordingly, develop sound evaluative judgments to close the learning gaps. Third, teachers may attempt to give students dialogic feedback using annotations in student journal entries or providing verbal feedback during face-to-face or online student-teacher conferences (Lam 2018b). The use of dialogic feedback in AaL enables students to uptake constructive feedback information for text revision, which could possibly bring about writing improvement in the long run. Fourth, teachers can require students to compile their portfolios with multimodal artifacts and permit them to choose their preferred portfolio contents and modes of presentation (i.e., paper portfolios or e-portfolios) by mutual agreement. Having followed these AaL practices, students are prone to acquiring those critical thinking and self-monitoring skills, given that they frequently review and rework on what best represents their profiles, efforts and achievements in learning writing. The next section reveals three emerging critical issues arising from portfolio-based scholarship in both L1 and L2 writing environments.

#### *Critical Issues of Portfolio Assessment*

To address the issues of portfolio assessment relating to AaL, I divide the discussion into three sub-sections, namely scoring, ownership, and sustainability of portfolio assessment.

#### *Scoring*

Scoring essays is somewhat more straightforward than scoring writing portfolios, in which a complex process is involved, such as portfolio reading, rating, norming and constructing rubrics (Weigle 2007). For instance, essay testing typically covers a genre or two for grading, whereas writing portfolios may include up to five diverse genres plus one reflective piece for summative evaluation. Because of that, it is controversial to understand how to agree on a holistic score if two raters read the same portfolio and unanimously assign a score based upon the scoring rubrics (Hamp-Lyons & Condon 1993). Further, it remains problematic whether it is ethically appropriate to score the reflective piece in a portfolio, given reflective letters or journals are highly expressive and personal (Schendel & O'Neill 1999). If students realize that their reflection is scored, they

may not produce an accurate account of their writing development. Instead, they will compose a promising narrative about their learning for fear of losing marks. Thus far, scholars have not come to a consensus as to *whether* and *how* the reflective piece is scored in order not to mitigate the learning-oriented and pedagogical potentials of portfolio assessment (Lam 2017).

If AaL is a core aspect of writing portfolio assessment, teachers should de-emphasize its summative function, which is likely to overcrowd its formative one. By so doing, Lam (2018a) proposes that reflective pieces are only made as a mandated but non-graded submission requirement. Alternatively, teachers simply assign pass or fail if they encourage students to produce high-quality reflection free from linking to letter grades or numerical marks. More than a decade ago, White (2005) had already suggested using reflective letters as a scoring guide to triangulate students' self-selected and self-reported artifacts kept in their portfolios. Through these reflective letters, portfolio tasks can turn into a valid source of evidence to be scored by teachers, avoiding contrived self-reflection fabricated by students, who simply want to satisfy teacher expectations. Despite this recommendation, a formal evaluation of reflective pieces remains contentious. Because the act of scoring self-reflection impartially demands a high level of assessment knowledge and skills, there is a need to provide practitioners with pertinent training in reading, interpreting, rating and responding to self-reflection in a contextualized fashion.

### *Ownership*

One key advantage of portfolio assessment is ownership, which advocates learner agency in AaL. When compiling their portfolios, students can enhance confidence, motivation and agency in their learning development (Tierney, Carter & Desai 1991). While portfolio assessment is commonly considered learner-centered and self-regulated-oriented, a majority of portfolio-based programs remains top-down and their designs are controlled by teachers (Lam & Lee 2010). Unquestionably, the framework and logistics of any portfolio program needs to be initiated by teachers. In some cases, students are even asked to submit interim drafts at regular intervals following a rigid schedule. In these programs, students only enjoy a minimal level of ownership, since they are not fully involved in planning and developing the portfolio process according to their preferences, abilities and learning dispositions. Nonetheless, when it comes to classroom implementation, students should be given more autonomy to manage their portfolios. For instance, students can be fully consulted about the number and type of entries to be included in a writing portfolio. Without adequate ownership, students neither recognize portfolio keeping as a gateway to the development of critical thinking skills nor foster self-regulatory capacity when using portfolios to improve learning writing.

Although students are not involved in macro-level decisions like program structure, they may participate in micro-level decision-making processes, so that they can steadily develop ownership when constructing portfolios (Yin 2014). Micro-level decisions comprise types of artifacts and medium of presenting the portfolio (e.g., e-portfolios). If students are permitted to submit their preferred artifacts in a self-selected medium, they are more willing to showcase their expertise and accordingly, nurture ownership in learning (Siu 2013). The following three studies exemplify that if students are deprived of ownership in the portfolio keeping process, they are less likely to take the learning advantages of portfolio assessment on board. In Hirvela and Sweetland's (2005) study, the two informants were positive about the portfolio approaches they experienced, but they lacked ownership, because they were hard pressed to fulfill all external requirements imposed by the researchers. Likewise, Aydin (2010) found that the 204 participants perceived they had improvement in reading, grammatical knowledge and writing skills after using portfolio assessment. However, they felt bored and occupied when managing their portfolios due to the fact that they largely followed the procedures set by the instructors without having ownership in expressing their thoughts. Regarding ownership, Torrance (2007) reported that most post-secondary-level students complied with the assessment criteria, and obtained their graduation

qualifications without actively engaging in learning improvement as anticipated in AaL. Clearly, these student participants lacked ownership in reflective learning, which could facilitate them to become critical evaluators.

### *Sustainability*

The most powerful value of portfolio assessment is its continuity for students and teachers to review efforts, progress and achievements. With that said, most portfolio-based studies take place in one-off settings, namely a six-week period, one semester or one academic year (cf. Burner 2014). While these empirical studies claimed that students usually had improvement in affective (motivation), linguistic (composing skills) and metacognitive (self-regulated learning) aspects of writing (Lam & Lee 2010; Romova & Andrew 2011; Ziegler & Moeller 2012), we have no concrete evidence to demonstrate that students have long-term academic benefits when they transit from one key learning stage to another. In fact, two informants expressed concerns whether other instructors would require them to keep the portfolios or review their work done in the portfolio program (Hirvela & Sweetland 2005). Considering the issue of sustainability, Lam (2014) has argued that although we can coach students to independently regulate their learning via portfolios, it depends on whether teachers have consensus to make portfolio experiences sustainable from one grade level to another or from secondary school to university. In the US, some university programs utilize final-year high-school writing portfolios as a mechanism for placement. Apart from that, we still have little knowledge of how we can track student learning trajectories longitudinally, namely from Grade 3 to Grade 6, and investigate the extent to which writing portfolios have long-term benefits on students.

To sustain the portfolio process, students are encouraged to plan, monitor, and evaluate their learning through internal feedback relating to self-set goals and external criteria. By so doing, they can transfer these self-regulated study skills to other learning occasions, such as different subject-specific programs or other skill-based courses (Fox & Hartwick 2011). This kind of cross-discipline knowledge cum language transfer is likely to facilitate long-term regulation of learning, which aligns with the major tenet of AaL (Perrenoud 1998). Besides, the idea of sustainability in portfolio assessment embraces growth and development in the portfolio keeping process. Jones (2012) has likened portfolio-based learning to a 'companion', whom promulgates active learner engagement, learning as dialogic, and overview of learning that equip primary-level pupils with indispensable skills for life-long learning. All of these three aspects support growth and development in learning across subject disciplines and beyond study levels. In sum, to achieve sustainability, portfolio keeping experience plays a key role in transforming students into self-regulated learners, who continue to review and evaluate their works-in-progress and master those metacognitive thinking skills simultaneously.

### **Pedagogical Implications**

Based upon the above discussion and the case, I outline three areas of concern as pedagogical implications. They include: (1) clarification of conceptual ambiguity; (2) explicit instruction in AaL; and (3) assessment training for writing teachers.

#### *Clarification of conceptual ambiguity*

As revealed in educational assessment scholarship, AfL and AaL are neither straightforward concepts to comprehend nor are they easily translated into classroom practices (Clark 2012). Because of mandated professional development, teachers have probably heard of AfL and AaL-

related practices, but they may not have sound understanding of their theoretical underpinnings, let alone attempting them in the context of writing portfolio assessment (Lam 2018c). Before convincing teachers of putting AaL in practice, they should be trained to understand the disparities and similarities between AfL and AaL. For instance, AfL is public, group-oriented and flexible, usually involving a community of practice to enhance overall teaching and learning in a less formal manner, whereas AaL is private, individualistic and sustainable as long as students are ready to generate internal feedback to close their learning gaps and develop self-regulated capacity for life-long learning. Despite these disparities, central to the tenets of AfL and AaL is feedback and regulation of learning. Undoubtedly, we cannot underestimate the divergence and convergence of AfL/AaL as they would create a huge impact on how policy is formulated, curriculum drafted and pedagogy delivered in practicality. Further, if teachers have a clear understanding of AfL and AaL, they will shift their roles from knowledge transmitters to knowledge consultants, because portfolio assessment is usually run in a workshop mode, where teachers and students have shared responsibility to co-construct knowledge of writing (Atai & Alipour 2012). While the idea of AfL and AaL is learner-centric and highlights regulation of learning, students need explicit instruction when practising AaL.

#### *Explicit instruction in AaL*

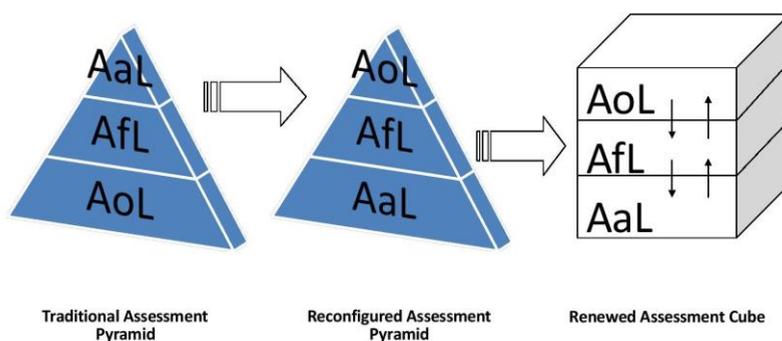
AaL involves a series of self-assessment and self-reflection skills in the average portfolio process - collection, reflection and selection. With these high-order learning skills, students need to explicitly learn and then acquire language of reflection and meta-discourse in the act of self-reflection. Oftentimes, instruction in self-reflection refers to providing students with guidance on completing self-assessment, reflection letters and reflection journals relating to the learning objectives. Yet, this top-down instructional approach may not necessarily benefit student learning, given students tend to comply with the criteria uncritically (Lam 2016). Instead, teachers need to encourage students to examine their learning gaps independently, and formulate strategies to close the gaps under the aegis of initial teacher input (Torrance 2012). As mentioned earlier, such a bottom-up instructional approach includes provision of dialogic feedback to discuss works-in-progress through conferences; use of annotated responses to reflective pieces (Lam 2018b); and use of scaffolded activities that emphasize the *how* aspect of regulating the writing process, such as planning, goal-setting, task analysis, monitoring emotions, evaluating, etc. (Panadero, Jonsson & Strijbos 2016). Despite these well-informed strategies, coaching students to master AaL skills takes time, energy and efforts to accomplish. Hence, it is advisable to offer pupils explicit instruction in AaL in their formative years by correcting a stigma that young learners are not ready to self-regulate their learning (Jones 2012). To give explicit instruction in AaL, teachers should equip themselves with appropriate assessment training.

#### *Assessment training for writing teachers*

In the psychometric paradigm, teachers are well-versed in grading student work for reporting. Yet, providing written formative feedback to students appears to be problematic and inadequate, given that the act of composing qualitative commentary is professionally exacting (Lee 2008). To incorporate AaL into the current English curriculum requires teacher learning especially portfolio assessment, since teachers need to learn about how to interpret, respond to, and enact student internal feedback to inform the teaching and learning of writing (Lam 2018c). In other words, teachers are anticipated to master how to utilize assessment data formatively. To develop this kind of writing assessment literacy demands positive beliefs in students, knowledge about feedback, and skills in promulgating reflexivity at the classroom level (Crusan, Plakans & Gebril 2016). Positive beliefs refer to faith in students who can evaluate their works independently. Here, teacher cognition plays a crucial role in encouraging students to achieve learning-how-to-learn skills. Knowledge about feedback deals with the levels of feedback literacy development, including whether teachers can direct students to produce feedback for regulating learning, and

how they adopt feedback for informing pedagogy (Sutton 2012). Skills involve technical know-how regarding how to make self-assessment and self-reflection a central feature in portfolio-based programs. From the above, the uptake of writing assessment literacy calls for relevant assessment training, which facilitates teacher learning of AfL and AaL. Conventionally, teachers can attend face-to-face professional development courses, initiate action research projects, join school-university collaboration studies, and attend practically-oriented conferences. Currently, there are a plethora of webinars, short-term on-line courses, and web-based resource materials available to teachers. Regardless of these options, teachers are reminded to keep updating their writing assessment knowledge in order not to routinize AaL practices.

Figure 2: A renewed assessment cube



## Concluding Remarks

In closing, the paper has duly achieved its tripartite goals by (1) forming a theoretical lens of AaL through unpacking two major theories - formative assessment and self-regulated learning; (2) providing renewed understanding of AaL in practice via a case of writing portfolio assessment; and (3) addressing areas of concern when AaL is applied in the regional and international writing classroom landscape. For goal number (1), it contributes to developing a unifying conceptual basis of AaL, because like AfL, AaL lacks a clear-cut theory. For goal number (2), it is indispensable to situate AaL in practice, otherwise writing practitioners simply ignore this promising pedagogical idea, which will be misinterpreted as another high-sounding theory non-relatable to everyday classroom experiences. For goal number (3), teachers, administrators and policy-makers should be well aware of possible caveats if they aspire to include AaL practices in their policy, curriculum and pedagogy. Also, this conceptual paper has provided a balanced perspective of how theory informs practice and vice versa, and has demystified what AaL is, especially in relation to AfL and how it can be extensively disseminated in classrooms. Despite these contributions, AaL remains a complex educational idea, which needs further empirical and theoretical investigations. After all, AaL is extremely beneficial to writing classroom lives, where it is considered one of the most sought-after skills in the twenty-first century. Because of this, I argue that AaL, among AfL and assessment of learning (AoL), should go hand-in-hand to provide students, teachers and stakeholders with timely assessment data to upgrade teaching and learning of writing, namely utilizing these assessment information to fine-tune instructional approaches and encourage self-reflection to promote learning. Thus, drawing upon Earl's (2013: 31-32) traditional and reconfigured assessment pyramids, I would like to propose a renewed assessment cube, where

AaL, AfL and AoL are complementing each other formatively and enabling teachers and students to assimilate learning into assessment regardless of those English prepositions (see Figure 2).

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