

# From Principle to Practice: Assessment for Learning in Malaysian School-Based Assessment Classroom

By

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## Abstract

*School-Based Assessment (SBA) has been implemented in Malaysian schools in 2011 with attempts to (i) achieve the aspiration of National Philosophy of Education towards developing learners' physical, emotional, spiritual and intellectual abilities, (ii) reduce exam-oriented learning, (iii) evaluate learners' learning progress and (iv) enhance teachers' integrity in assessing, recording and reporting of learners' learning. Malaysian SBA system laid emphasis on features like Standard-Referenced Assessment, Holistic, Integration, Balance, Robust and Assessment for Learning (AfL). The purpose of this study is (i) to investigate teachers' AfL competencies across gender, teaching experience and measurement training and (ii) to examine the effect of gender, teaching experience and measurement training on the AfL practices. A set of questionnaire consisted of 30 items on 4 point frequency scale was used to collect data from 408 respondents which have been randomly selected using the cluster sampling procedure from 10 districts. Data were analyzed using descriptive and inferential statistics. Overall results showed that the competency levels of AfL practices were mainly at the basic level. Effect of gender were found statistically significant on the level of practices. The implications of the results that underpin AfL are discussed to enhance teachers' overall assessment competency.*

**Keywords:** *Classroom Assessment, Assessment for Learning, Attitude Measurement, Assessment Feedback, Students' Motivation and Self-Esteem*

## 1. Introduction

Currently, Malaysia is undergoing an education transformation in the assessment system with the implementation of the National Education Assessment System (NEAS). One of the objectives of NEAS is to strengthen School-Based Assessment (SBA). SBA was officially introduced by the Ministry of Education (MoE) along with Standard-Based Primary School Curriculum (KSSR) in stages starting in 2011. It is measuring three domains; cognitive, affective and psychomotor. The assessment is undertaken by the subject teachers during the teaching and learning process in accordance with procedures set by the Examination Board (Lembaga Peperiksaan Malaysia, 2012). Currently, SBA has four assessment components which are (i) School Assessment (ii) Centralized Assessment, (iii) Assessment of Physical Activity, Sports and Co-Curriculum and (iv) Psychometrics Assessment. Under this system, teachers are expected to get involved more in curriculum and assessment decision making and teaching approaches in response to students need (Maxwell and Cumming, 2011). This will provide opportunities for teachers to continuously monitored their students by giving feedback to improve students' learning abilities (Brown, 2001). Tombari and Borich (1999) in Suseela and Sim (2010) stated that SBA that administered consistently throughout the year will give a better picture of students' actual knowledge and ability as compared to the one-off summative evaluation. Another positive effect from SBA is students are taught according to their individual capabilities towards holistic education; not only to improve students' academic, but also their emotional, spiritual and physical abilities (Azlin et al., 2013).

Globally, assessment has emerged from the era of comparing students with other students based on achievement to the present time where student performance is evaluated based on a pre-set standard (Stiggins, 2006). Accordingly, the Malaysian SBA system also changed in two important dimensions;

from total reliance on norm-referenced to criterion-referenced and formative function of assessment is given more emphasized. In fact, the implementation of SBA in Malaysian schools is aligned with the global needs that focus on improving the quality of student learning through (i) balancing summative assessment with formative assessment and (ii) balancing centralized exam with classroom assessment (CA)(KPM, 2011). However, CA must go beyond providing scores and corresponding judgment on student learning. CA should provide rich descriptions of the current state of students' achievement, communicate assessment results that can transmit sufficient and understandable feedback to guide the learner's actions, identifying learning needs and adjusting teaching accordingly (Black *et al.*,2006). Therefore, the announcement made by the Ministry of Education to shift from a centralized system to SBA system has generated a heated debate among various stakeholders. The issues raised revolve around the technical aspects of the implementation and teacher-student readiness for change. In a recent study by Faizah (2011), teachers voiced about time constraints and these sentiments were also expressed in a local newspaper (The Star, 9 March 2012). Teachers were worried that SBA would take their precious teaching time and consequently they had to rush through the syllabus. Moreover, SBA imposed additional workloads on the teachers who would have to assess their students more frequently and be responsible for keeping a record of their achievement. A report in The Star, 19 March (2012) highlighted on the introduction of online School Examination Analysis System. Consequently, teachers need to spend hours to key in student results online. This is a tedious task, especially for the school with poor internet connection. Teachers would have trouble logging in due to system congestion and network problem and this could lead to frustration. Another important issue was teachers' lack of knowledge and skills in assessment would also jeopardize the validity and reliability of SBA results (Chan, Gurnam and Md Rizal, 2010). This study revealed that a substantial number of teachers did not have exposure to SBA; meaning that they were lacking in knowledge of interpreting test scores, doing item analysis and forming an item bank. A study by Hamzah and Pamasivam (2009) on SBA Oral English assessment revealed that SBA is not implemented according to the guidelines provided partly due to teachers lacking knowledge and skills in the area while Nor Hasnida *et al.* (2012) found that teachers were not following the guidelines produced by the Malaysian Examination Board. Their findings showed that some teachers were not very sure of the assessment criteria and did not have a clear understanding of the grading process.

SBA has long been implemented in countries like United States of America, New Zealand and Australia. Most recently, Hong Kong implemented SBA in all taught subjects. Despite their years of experiences in implementing SBA, researches still carried out more studies to investigate relevant aspects of SBA (Choi, 1999; Daugherty, 1995; Hill *et al.* 1997). According to Black and William (1998), the effectiveness of SBA implementation is really depends on teachers and learners. He pointed out that it was not easy to cultivate the culture of assessment among teachers due to different levels of acceptance. However, formative assessment is still seen as an authentic method of assessment and with good implementation will ensure the students not only gaining knowledge but also mastering the skills. As SBA is a fairly new innovation in the Malaysian education system, no specific study found in the practice of AfL. Therefore, the aim of this study is to investigate teachers' practices on 5 principles of AfL across (i) gender, (ii) teaching experience, and (iii) measurement training and examine the effect of these factors on the practices. We hope the findings of this study could raise concerns which deserve due attention from the ministry.

### ***Assessment for Learning***

According to ARG (2002), Assessment for Learning (AfL) is the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get there. The concept of AfL addresses both roles of teachers and students in sharing and valuing sense-making processes. AfL means students benefit from the assessment which does far more than simply test what they know. AfL ensures that students take part in the kinds of activities that will help them develop by providing them with guidance and feedback. The first AfL principle includes the provision of effective feedback to students for productive learning. Teachers should

provide the feedback-rich environment by participatory approaches where students learn in collaboration with others. Feedback can drive a loop of continuous change and improvement for the teacher and the student as both learn from each other. Sadler (1989) stated that formative assessment is specifically intended to provide feedback on performance, improve and accelerate learning while Nicole and Macfarlane-Dick (2006) claimed that feedback would strengthen student's capacity to self-regulate their own performance. As a matter of fact, students learned best when they are actively involved in the process. The second AfL principle stated that when students working in small groups, they tend to learn more and retain it longer than when the same content is presented in other instructional formats. Consequently, students who work in collaborative groups appear more satisfied with their learning (Beckman, 1990; Chickering & Gamson, 1991; Johnson, Johnson, & Smith, 1991; Slavin, 1983). For this implication to materialise, the AfL process should help students aware of what they are learning and how they are learning it. While the third AfL principle is the adjustment of teaching based on the assessment results. Teachers are encouraged to make adjustments during classroom instruction through questioning and observation. Effective teachers should spend time analysing how well the students learn and reflect on the process in order to plan better for the next lesson. However, linking assessment to everyday classroom instruction requires teachers to make a shift in both their thinking and practices. When assessment focuses on evidence of student learning, teachers are required to plan and work using multiple methods. Their plannings must be flexible enough to allow adjustment to take place during instruction based on the results of the assessment (Black *et al.*, 2006). The fourth principle is the recognition of the profound influence assessment has on students' motivation and self-esteem. Assessment should encourage and promote motivation by accentuating progress and achievement rather than failure. Based on the literature review, teachers best practices of AfL have proven that its capability in making students feel greater ownership of their learnings and more likely attribute learning outcomes to factors within their controls (Black and William, 2002). Furthermore, self-assess skill as the fifth principle of AfL encourages students to take greater responsibility for their learning through engagement with assessment criteria based on reflections of their own performances. Assessment-capable students will provide information to teachers through feedback on their learning needs and enable more personalized development of the next teaching steps. This principle is supported by Andrade and Du (2007) with a strong recommendation for all teachers to exercise self-assess skills in the classroom because it encourages students to reflect on their own learnings as well as promotes responsibility and independence.

### ***Research Objectives***

The purpose of this study is (i) to investigate teachers' competencies level of practices of AfL on gender, teaching experience and measurement training and (ii) to examine the effect of gender, teaching experience and measurement training on AfL practices.

## **2. Methodology**

This study employed a survey design using Assessment *for* Learning Questionnaire (AfLQ) which consist of 30 items. The instrument has been content validated by experts and showed a high reliability index (Alpha Cronbach - 0.87). The response type is in the form of a 4 point Likert-type scale (Never-1, Sometimes-2, Often-3, Always-4). Levels of practice are determined based on the scale as follows; Unsatisfactory (1-1.99), Basic (2-2.99), Proficient (3-3.99), Distinguished (4-4.99). Four hundred and eight (408) primary school teachers participated in the study were randomly selected using a clustered sampling technique from 10 districts. The data sets on teachers' AfL practices were then analyzed using descriptive and inferential statistics.

## **3. Results**

Table 1 presents the summary of respondents' demographic factors. There were 26.7% male teachers and 73.3% female teachers. A total of 83.1% from the sample have attended measurement training but not the other 16.9%. Analysis from Table 1 highlighted that 44.4% of them have 3 years' experience in SBA, while 29.9% with 2 years and 25.7% with 1 year experience respectively.

**Table 1: Respondents Demographic Information**

SBA Training			SBA Experience			Total
			1 Year	2 Years	3 Years	
Yes	Gender	Male	19	29	37	85 (25.1%)
		Female	50	70	134	254 (74.9%)
	Total		69	99	171	<b>339 (83.1%)</b>
No	Gender	Male	15	6	3	24 (34.8%)
		Female	21	17	7	45 (65.2%)
	Total		36	23	10	<b>69 (16.9%)</b>
Total	Gender	Male	34	35	40	<b>109 (26.7%)</b>
		Female	71	87	141	<b>299 (73.3%)</b>
	Total		<b>105 (25.7%)</b>	<b>122 (29.9%)</b>	<b>181(44.4%)</b>	408

From the descriptive analysis, it is found that the overall mean for teachers' Af/L practices is 2.73 with 0.32 standard deviation. The individual mean were then categorized into four levels of practices (Unsatisfactory, Basic, Proficient and Distinguished). Analysis in Table 2 showed that 78.67% (321/408) of the teachers were in the basic level, 20.34% (83/408) in the proficient level while 0.99% in the unsatisfactory level. These results implied that 79.66% of Malaysian teachers were not fully engaged in practicing Af/L learning principles. The results were then grouped based on the sub-construct as shown in Table 3 in an ordinal summary. It showed that teachers' practices of MS have the highest mean (3.03; 0.42) followed by AT (2.86; 0.33), FB (2.82; 0.37), SA (2.56; 0.45) and AI (2.54; 0.40).

**Table 2: Level of Teachers' Af/L Practices in SBA Classroom**

Scale	Scored Mean	Level of Practice	Frequency	Percentage
Never	1-1.99	Unsatisfactory	4	0.99
Sometimes	2-2.99	Basic	321	78.67
Often	3-3.99	Proficient	83	20.34
Always	4-4.99	Distinguished	0	0.00

Table 4 summarizes the result of teachers' practices versus gender, teaching experience and measurement training in a matrix form. As for gender, the mean scored for the 4 principles of Af/L practices of female teachers are above the mean of male teachers except for active involvement of students in their own learning (AI). These figures claimed that male teachers practice AI more frequently than female teachers. This finding supported by MANOVA analysis that demonstrated a statistical significant difference in the practices of Af/L principles in relation to gender ( $F(5,402) = 3.55, p < 0.05$ ; Wilk's  $\Lambda = .004$ , partial  $\eta^2 = .042$ ). Therefore, we can conclude that Af/L practices were significantly dependent on gender.

**Table 3 : Teachers' Mean Score Practices for 5 Principles of Af/L**

Principle of Af/L	Mean $\bar{x}$	Standard Deviation $s$	Rank
The recognition of the profound influence assessment has on motivation and self-esteem of students (MS)	<b>3.03</b>	<b>.42</b>	<b>1</b>
The adjustment of teaching taking account the result of assessment (AT)	<b>2.86</b>	<b>.33</b>	<b>2</b>
The provision of effective feedback to students (FB)	<b>2.82</b>	<b>.37</b>	<b>3</b>
The need for students to be able to self-assess and understand how to improve (SA)	<b>2.56</b>	<b>.45</b>	<b>4</b>
The active involvement of students in their own learning (AI)	<b>2.54</b>	<b>.40</b>	<b>5</b>

Descriptive analysis of teaching experience in Table 4 displayed a slightly increased in teachers' mean practices over the period of teaching experiences. However, the group of teachers who have 2 years experience in teaching SBA classes illustrated a slightly lower mean as compared to the group with 1 and 3 years of experience. Further investigation was then carried out to determine whether teaching experience has a significant effect on the practices. MANOVA test results revealed that AfL practices were not significantly dependent on teaching experience ( $F(10,802) = 1.078, p > 0.05$ ; Wilk's  $\Lambda = .974$ , partial  $\eta^2 = .013$ ).

The mean scored for teachers who have under gone measurement training showed a slightly increased on each principle of AfL. However, the mean scored were still on the basic level of practices except for the sub-construct of MS (3.03). Training factor should enhance teachers' practices as teachers accumulate the knowledge and skills of assessment from the workshop. However, MANOVA test results showed that AfL practices were not significantly dependent on training factor ( $F(5,402) = 1.301, p > 0.05$ ; Wilk's  $\Lambda = .984$ , partial  $\eta^2 = .016$ ).

**Table 4 : Mean of AfL Practices Across Gender, Experience and Measurement Training**

Factors		Principle of AfL				
		FB	AI	AT	MS	SA
<b>Gender</b>	Male	2.79	2.56	2.80	2.95	2.51
	Female	2.83	2.52	2.88	3.06	2.57
	<b>Total</b>	<b>2.82</b>	<b>2.53</b>	<b>2.86</b>	<b>3.03</b>	<b>2.56</b>
<b>Experience</b>	1 Year	2.83	2.53	2.88	3.05	2.55
	2 Year	2.79	2.50	2.79	2.96	2.51
	3 Year	2.83	2.55	2.90	3.07	2.59
	<b>Total</b>	<b>2.82</b>	<b>2.53</b>	<b>2.86</b>	<b>3.03</b>	<b>2.56</b>
<b>Measurement Training</b>	No	2.80	2.52	2.85	3.02	2.55
	Yes	2.88	2.59	2.94	3.07	2.58
	<b>Total</b>	<b>2.82</b>	<b>2.53</b>	<b>2.86</b>	<b>3.03</b>	<b>2.55</b>

#### 4. Discussion

Overall results revealed that Malaysian teachers' AfL practices in the SBA class room are within the range of unsatisfactory to basic levels of almost 80%. This study also found that only gender has a significant effect on AfL practices. As a reflection, these results suggest that Malaysian SBA system truly need a forceful alignment between content of the curriculum and teachers' competency. For a better implementation, teachers' competencies should be elevated and promoted through a continuous professional development in the three main components of teaching and learning process; content, pedagogy and assessment. Armed with a sound knowledge and greatly skilled in those dimensions, teachers are then capable to create an environment, culture and practice that lead to the enrichment of the learning experience (Quilter, 1998). Furthermore, by practicing AfL culture in each classroom that they taught, teachers are gradually constructed and developed an effective Malaysian SBA system. This can be materialized when they turn the current day to day classroom assessment practice into a powerful tool for learning. According to Nicol and Macfarlane-Dick (2006), a formative assessment can be an integral part when teachers practice effective feedback at the heart of the learning process. Though it is time consuming, significant energy and effort should be devoted to help students understand where they have gone wrong and also what they need to do to improve themselves. Besides, feedback given must be clearly explained in a constructive manner which closely referred to the assessment criteria and the learning objectives.

The first few years of the Malaysian SBA implementation seem so difficult. Teachers were unprepared for the change and found the new system challenging. They are required to learn new skills. Most of the

time, they had to learn through experience and more of 'on-the-job' training. Hence, this study recommends a few important points. Firstly, teachers need to see assessment as central to classroom practices and crucial for helping students learn. Secondly, teachers should regard AfL as a key to professional skills. It should be incorporated in the planning of everyday classroom activities. Learning goals, teaching strategies and assessment criteria should be carefully matched. Students should know in advance what they will learn, as well as how and why they are to be assessed. Teachers' daily / weekly planning should be flexible so that they can make changes in response to new information, opportunities or insights. Their planning needs to include strategies to check students understand the goals they are pursuing and the criteria that will be applied in assessing their work. Thirdly, The Ministry of Education (MoE) and Malaysian Examination Syndicate (MES) must prepare clear guidelines and continuously train teachers to ensure uniformity and standardization of practice. Steps must be taken to equip **all** teachers with the necessary knowledge, skills and positive attitude to face all challenges. Enhancing teachers' competency should be done through in-service training and professional development in the form of workshops. These workshops are most beneficial platform where teachers are given the opportunity to voice their concerns and collectively devise solutions to overcome their problems in a collaborative manner. Finally, their ideas and comments must be taken into considerations in decision making process by the authority.

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