

# Pre-Service Teachers Literacy of Assessment for Learning

Nur Hidayanto Pancoro Setyo Putro<sup>1\*</sup>, Siti Maftuhah Damio<sup>2</sup>, Sukarno<sup>3</sup>, Ari Purnawan<sup>4</sup>

<sup>1 3 4</sup> Faculty of Languages and Arts, Yogyakarta State University, Indonesia

nur\_hidayanto@uny.ac.id

sukarno@uny.ac.id

ari\_purnawan@uny.ac.id

<sup>2</sup> Faculty of Education, University Teknologi MARA, 42300 Bandar Puncak Alam, Malaysia

maftuhah@uitm.edu.my

\*Corresponding Author

<https://doi.org/10.24191/ajue.v18i3.18984>

*Received: 7 July 2021*

*Accepted: 12 May 2022*

*Date Published Online: 31 July 2022*

*Published: 31 July 2022*

**Abstract:** This study set out to compare the literacy of assessment for learning (AfL) of pre-service English teachers in Indonesia and Malaysia. The focus was on how pre-service teachers majoring in English education in the two countries understood the concept of AfL which includes the six dimensions- framework, namely teachers as assessors, teachers as pedagogists, teachers as student partners, teachers as motivators, teachers as learners, and teachers as a stakeholder partner. It involved 451 pre-service English teachers. A total of 42 items of the AfL questionnaire developed by Alonzo (2016) was used in this study. Confirmatory factor analysis with Mplus version 7.2 were used to see whether the pre-service English teachers had the same perception in terms of the six dimensions. Subsequently, MANOVA was used to see whether dimensions that emerged differed significantly by the respondents' gender and their highest expected education. The results showed that the six dimensions of assessment for learning emerged from the data collected from the pre-service English teachers in the two countries. Some significant differences on the six dimensions were found in relation to their gender and expected education.

**Keywords:** Assessment for learning, Literacy, Pre-service teachers, Assessors, Pedagogists

## 1. Introduction

Assessment for learning (AfL) is a required knowledge among educators across the globe. Understanding the concept helps to enhance the implementation of assessment at all level of education. On the contrary, teachers with no understanding of the concept and practice of AfL may fail to recognize the learners' weaknesses and to provide appropriate assistance to facilitate the learning process. While much research on the area of AfL has highlighted the benefits of assessment for learning (Popham, 2009; Davison & Michell, 2014) and teachers practices of assessment for learning (Chappuis & Stiggins, 2002; Maclellan, 2001; Stiggins, 2002; and Swaffield, 2011) in many different countries, what is less clear is the understanding of pre-service English teachers on their AfL literacy in Southeast Asian countries as proposed by Alonzo (2016) in his framework for the six dimensions of AfL, namely Teachers as Assessors, Teachers as Pedagogists, Teachers as Student Partners, Teachers as Motivators, Teachers as Learners, and Teachers as Stakeholder Partners. This indicates a need to understand the various perceptions of teachers' roles in AfL in countries like Indonesia and Malaysia. Furthermore, an investigation on how the understanding of the six dimensions of AfL is interpreted based on the demographic variables of pre-service English teachers, including gender, age, GPA and expectations for further education may shed a new light into the

various perceptions of pre-service English teachers' roles in AfL. Thus, it ascertained the need for the current study, comparing Indonesian and Malaysian pre-service teachers' literacy of AfL.

## **2. Literature**

There is a growing body of literature that recognises the importance of assessment for learning (AfL) as one of the most important components that determine the effectiveness and success of the English learning process in the classroom. More researchers are conducting investigations related to the positive effects of assessment, such as Stiggins (1999), Popham (2009), and Davison and Michell (2014) who, based on their research findings, suggest that literacy of assessment for learning must be a key component of professional knowledge, skills, and professional development of pre-service and in-service teachers and pre-service teachers. In other words, there is a need to ensure that in-service teachers and pre-service teachers develop a high level of expertise in the use of assessment for learning because their literacy level for assessment influences their confidence in using a variety of assessment strategies, both those developed by the teachers and those in the system (Abd Samad et al., 2008; Davison and Michell, 2014; Ismail et al., 2019; Sabbir, 2019; Wilson & Narasuman, 2020). Likewise, the teacher's assessment for learning literacy level enables them to effectively use assessment information to make important decisions related to learning and teaching that further enhances the support of student learning (Popham, 2009). This is especially so with a variety of assessment development and inclusion of many elements in them, such as the inclusion of Higher Order Thinking Skills (HOTS) in School Based Assessment (SBA) which is currently taking place in Malaysia (Goddard et al., 2000; Wilson & Narasuman, 2020)

The importance of awareness of the Assessment for Learning literacy inspired Alonzo (2016) to develop and validate an instrument to measure teachers' literacy of assessment for learning in the form of an Assessment for Learning survey. The survey was developed by referring to strong theoretical reasons and strong empirical evidence. In validating the instrument, Alonzo (2016) used Rasch analysis to analyze tools at the item level and exploratory and confirmatory factor analysis to see and test construct dimensions to ensure that the developed tools meet analytical requirements and analytic factors. The results of the study was an instrument to assess teachers literacy of assessment for learning with a new framework in the Assessment for Learning, which includes 'Teachers as Assessors', 'Teachers as Pedagogists', 'Teachers as Student Partners', 'Teachers as Motivators', 'Teachers as Learners', and 'Teachers as Stakeholder Partners'.

Considering the importance of assessment for learning, in-service and pre-service teachers' understanding of the six dimensions of the teacher's role in the implementation of Assessment for Learning validated by Alonzo (2016) is certainly a very vital thing in the implementation of assessment by teachers. Failure to understand the teacher's role in the assessment for learning (the teacher as an assessor, a pedagogist, a student partner, a motivator, a learner, and a stakeholder) will greatly determine the next decision making, including a need to understand the level of students ability based on the results of the assessment and what treatment is needed after the implementation of the assessment itself. Thus several attempts have been made to investigate teachers' perception and the importance of the literacy of assessment for learning.

Despite the numerous studies on teachers assessment for learning (Chappuis & Stiggins, 2002; Ferguson & Brown, 2000; Maclellan, 2001; Stiggins, 2002; and Swaffield, 2011) in various countries, there has not been a single study using the Alonzo framework (2016) to compare Assessment for Learning literacy in Southeast Asian countries such as Indonesia and Malaysia. This study aimed to provide insights into comparing Literacy Assessment for Learning prospective pre-service English teachers in Indonesia and Malaysia. Considering the importance of literacy of Assessment for Learning, the focus of this research is on how pre- service English teachers in the two countries understand the concept of Assessment for Learning which includes 6 dimensions according to the framework developed by Alonzo (2016).

This research is expected to help pre-service English teachers in Indonesia and Malaysia to understand the basic concepts and improve their Assessment for Learning literacy so that future teachers will be able to develop their assessment skills professionally. Furthermore, the research should also highlight how the understanding of the dimensions of Assessment for Learning is

interpreted based on the demographic variables of English teacher candidates, including gender, age, GPA and expectations for further education.

### **3. Methods**

This research is a quantitative study that used a survey as the data collection tool. This research was conducted through Googleform - an online survey. The survey of teachers literacy of Assessment for Learning developed by Alonzo (2016) was used in this study. This survey included 42 questions that reflected the six dimensions to be studied in this study. The 42 survey items are summarized in (Appendix 1). A total of 451 respondents who were pre-service teachers of English from Yogyakarta State University and Universiti Teknologi MARA, Malaysia participated in the survey. The respondents were limited to semester four students or above who had taken assessment courses. Confirmatory factor analysis (CFA) was used as the main analysis in this study to see the extent to which the six dimensions suggested by Alonzo (2016) appeared in this study. Confirmatory factor analysis was conducted with Mplus version 7.2 (Muthén & Muthén, 1998-2012). Maximum likelihood estimation with robust standard errors (MLR) was chosen as the estimator in the analysis. The model fit was evaluated from four evaluative fit indices: comparative fit index (CFI); Tucker-Lewis index (TLI); root mean square error of approximation (RMSEA); and standardised root mean square residual (SRMR). CFI and TLI values above .90 suggested an acceptable and good fit (Bentler, 1990; Hu & Bentler, 1999; Tabachnick, Fidell, & Osterlind, 2007; Wang & Wang, 2012). RMSEA and SRMR values of less than .05 are recommended but values of up to .08 are acceptable (Hu & Bentler, 1995, 1999). In addition to the four fit indices, chi-square statistics ( $\chi^2$ ) were also considered: a ratio of 1/3 or less between df and  $\chi^2$  suggests that the model is acceptable (Byrne, 1991; Hu & Bentler, 1995, 1999). Because the  $\chi^2$  statistic is highly sensitive to sample size, the significance of  $\chi^2$  was not used as the main criterion to reject the model.

Subsequently, the results of the CFA were used to see the extent to which the dimensions of assessment for learning are different in terms of gender, GPA, and educational expectations of students by using MANOVA.

### **4. Findings**

This section describes the findings from the present study which includes the results from the confirmatory factor analysis and the results from MANOVA.

#### **4.1 Results of Confirmatory Factor Analysis of the 6-Factor Model**

A set of data collected from the self-assessment survey of 155 preservice English teachers in Indonesia and 296 pre-service teachers from Malaysia was used to test the 6-factor model of assessment for learning literacy proposed by Alonzo (2016). The CFA results are presented below.

##### **4.1.1 Model Test Statistics and Fit Indexes of the Proposed Model**

The model fit statistics was the first aspect of the results considered in evaluating the model fit. They were used to measure whether the covariance matrices of the CFA-derived model and of the sample are close enough (Alonzo, 2016). These model statistics are the comparative fit index (CFI); Tucker-Lewis index (TLI); root mean square error of approximation (RMSEA); and standardised root mean square residual (SRMR). The following criteria were used as the baseline to consider the model fit: CFI and TLI values above .90 suggested an acceptable and good fit (Bentler, 1990; Hu & Bentler, 1999; Tabachnick, Fidell, & Osterlind, 2007; Wang & Wang, 2012). RMSEA and SRMR values of less than .05 are recommended but values of up to .08 are acceptable (Hu & Bentler, 1995, 1999).

The results from several rounds of confirmatory factor analyses showed that the fit statistics of the 6-factor model were all satisfactory within the threshold values. The first two indexes, the RMSEA and SRMR had a value of .046 and .038, which were below the .50 cut off value to indicate a good fit (Wang & Wang, 2012). A closer look at the other two indexes, the CFI (.911) and TLI (.901)

also indicated a good and acceptable model. Therefore, these four indexes confirmed that the 6-factor model of teacher AfL literacy adopted from Alonzo (2016) is acceptable.

In addition to the four fit indices, the chi-square statistics ( $\chi^2$ ) were also examined: a ratio of 1/3 or less between df and  $\chi^2$  suggests that the model is acceptable (Byrne, 1991; Hu & Bentler, 1995, 1999). Because the  $\chi^2$  statistic is highly sensitive to sample size, the significance of  $\chi^2$  was not used as the main criterion to reject the model. After several rounds of CFA, the results showed that the chi-square statistics ( $\chi^2= 555.971$ ,  $df= 390$ ,  $p= .000$ ) suggested that the model is acceptable. This judgment is based on Kline (2005, 2010) who suggests that although the chi-square value is significant, a ratio between chi-square and degrees of freedom of less than 3:1 indicates an acceptable model. The results from the CFA showed that the ratio between the chi-square and degree of freedom ( $\chi^2/df$ ) in this set of data was 1.43, which indicated a perfect fit for the model. Therefore, the 6-factor model of assessment for learning literacy adopted from Alonzo (2016) was supported by these results. In conclusion, the five fit indices, namely the comparative fit index (CFI); Tucker-Lewis index (TLI); root mean square error of approximation (RMSEA); and standardised root mean square residual (SRMR) and the chi-square ( $\chi^2$ ) all showed that the 6-factor model is acceptable. However, 12 items from the 42 items adopted from the original AfL scale proposed by Alonzo (2016) were dropped since they were cross-loaded with other items.

**Table 1.** Standardised Loadings for the 6-Factor Confirmatory Model of Teacher AfL Literacy

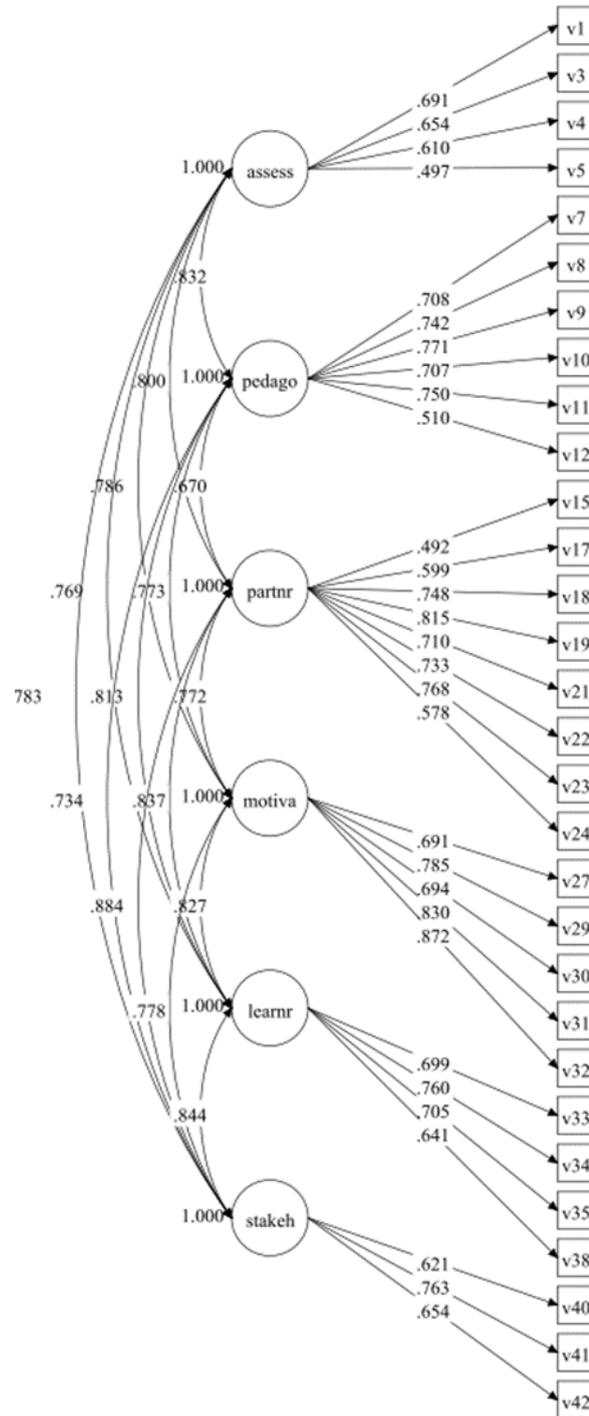
Factors	Variables	Indonesia		Malaysia	
		Estimate	S.E.	Estimate	S.E.
Assessor	V1 Designs assessment tasks	.691	.084	.460	.053
	V3 Uses rubrics to assess students' learning	.654	.078	.662	.051
	V4 Considers factors that affect students' performance	.610	.077	.592	.051
	V5 Engages in social moderation	.497	.066	.562	.052
	V7 Identifies appropriate teaching methods	.708	.075	.644	.046
Pedagogy expert	V8 Considers students' prior knowledge in lesson planning	.742	.048	.780	.040
	V9 Considers students' current level of abilities	.771	.075	.772	.035
	V10 Considers students' interest	.707	.059	.656	.038
	V11 Plans lessons according to students' learning needs	.750	.061	.733	.032
	V12 Tailors lessons to available resources	.510	.111	.726	.035
	V15 Assists students in using feedback to feed forward	.492	.077	.517	.045
	V17 Makes students understand the learning outcomes	.599	.082	.596	.045
Student Partner	V18 Involves students in the development of criteria and standards	.748	.058	.658	.036
	V19 Involves students in self-assessment	.815	.040	.687	.034
	V21 Develops students' capabilities in self and peer assessment	.710	.053	.700	.037
	V22 Engages students in self-assessment	.733	.049	.635	.042
	V23 Engages students in peer-assessment	.768	.058	.741	.029
Motivator	V24 Moderates feedback and results of self and peer assessment	.578	.058	.656	.038
	V27 Ensures openness in the class	.691	.065	.764	.034
	V29 Builds students' interest to learn	.785	.052	.793	.035
	V30 Affirms students' good performance	.694	.056	.775	.033
	V31 Clarifies students misconceptions	.830	.046	.724	.039
	V32 Reinforces positive learning attitude of	.872	.035	.813	.030

		students				
Teacher learner	V33	Participates in professional development related to	.699	.069	.698	.042
	V34	Engages in self- assessment/ reflection	.760	.063	.877	.028
	V35	Engages in peer-review of teaching performance	.705	.053	.769	.049
	V38	Undertakes further education/ training	.641	.062	.563	.063
Stakeholder partner	V40	Reports to community about students' performance	.621	.063	.302	.075
	V41	Identifies key assessment and teaching issues for review	.763	.069	.747	.043
	V42	Collaborates with family to establish support activities	.654	.058	.429	.070

In addition to the five fit indexes, the unstandardised and standardised estimates together with their standard errors were also examined to support the six-factor model. Table 1 showed the summary of the estimates. The results showed that the ratios between standards estimates and their corresponding standards errors were all greater than or equal to 1.96, indicating that all unconstrained loading estimates were significant at .05 level.

The factor structure of the 6-factor model is presented in Figure 1. The model fit indices and the factor loadings extracted from the CFA clearly indicated that the proposed 6-factor model adopted from the early work of Alonzo (2016) defines the dimensions of teachers' literacy of assessment for learning. These 6 factors are exactly the same as the model proposed by Alonzo (2016), suggesting that all the dimensions of teachers assessment for learning literacy can be found in the pre-service English teachers in Indonesia and Malaysia. They are labelled as:

- Teachers as assessors. This factor represents teacher assessment literacy to design assessment tasks, use assessment tasks and measure student learning, and consider factors which may affect students performance. The four items show substantial loadings on this factor, ranging from .497 to .691. The Cronbach's  $\alpha = .71$  is also reasonably high.
- Teachers as pedagogy experts. It consists of six items representing teachers' AfL literacy to identify appropriate teaching methods as well as to consider students prior knowledge, current ability levels, and interests to inform teaching and learning activities. All six items show high loadings on this factor, ranging from .510 to .771. The Cronbach's  $\alpha = .85$  is also reasonably high.
- Teachers as student partners. This factor is characterised by teachers intention to work closely with students and involve them in the assessment and learning process. It is represented by eight items with factor loadings ranging from .492 to .815 with a Cronbach's  $\alpha = .87$ , showing reasonably good internal consistency.
- Teachers as motivators. This factor shows a dimension of teacher AfL literacy in using the data collected from assessment to respond to individual students' learning needs . This factor is represented by five items with factor loadings ranging from .691 to .872 and a reasonably high internal consistency ( $\alpha = .849$ ).
- Teachers as teacher learners. This factor represents teachers reflection on their assessment experience and the use of assessment data to identify and respond to their needs for professional development. It consists of four items with factor loadings ranging from .641 to .760 and a Cronbach's  $\alpha$  of .797.
- Teachers as stakeholder partners. It is defined as a teacher AfL literacy in working with stakeholders to respond and enhance their assessment literacy. This factor is represented by three items with factor loadings ranging from .621 to .763 and a Cronbach's  $\alpha$  of .703.



**Fig. 1** The 6-factor model of teacher AfL literacy

**Note:** Assess= Assessor Pedagogy= Pedagogy Expert; Partnr= Student Partner; Motiva= Motivator; Learnr= Teacher Learner; Stakeh= Stakeholder Partner

This 6-factor model is consistent with Alonzo's (2016) proposed framework for teacher AfL literacy especially at the construct level. This indicates that pre-service English teachers in Indonesia and Malaysia have realized that assessment is not for the sake of getting students' grades only, but it requires teachers role and responsibility in being a good assessor, pedagogy expert, student partner, motivator, learner, and stakeholder partner. A closer look at the individual Cronbach's alpha coefficients of the six factors was high and thus provides a proof that the tool is trustworthy.

#### 4.1.2 The Correlation among the Factors

The correlation among the factors of the assessment for learning literacy model was examined in MPlus 7.2 and the results showed that the correlations among the factors ranged from .734 to .884, which indicated high correlations among the factors. This also indicates that the six factors may actually load into a higher order factor (Alonzo, 2016) though this was not examined in this study. The correlation among the factors is shown in Table 2.

**Table 2.** The correlation among the six factors

	Assessor	Pedagogy Expert	Student Partner	Motivator	Teacher Learner	Stakeholder Partner
Assessor	1.000					
Pedagogy Expert	0.832	1.000				
Student Partner	0.800	0.670	1.000			
Motivator	0.786	0.773	0.772	1.000		
Teacher Learner	0.769	0.813	0.837	0.827	1.000	
Stakeholder Partner	0.783	0.734	0.884	0.778	0.844	1.000

#### 4.2. Results of Multivariate Analysis of Variance (MANOVA)

The multivariate analysis of variance (MANOVA) was carried out to determine whether there are any statistically significant differences in the six dimensions of assessment for learning (AfL) by the independent groups (i.e. students' gender, GPA, and expected education). The interpretations of these analyses were taken from the coefficient ( $F$ ) values or  $Sig.$  value. If the  $F$  value is higher than the  $F$  table or the  $Sig.$  value is less than .05 ( $p \leq .05$ ), then the alternative hypothesis is accepted, and the null hypothesis is rejected.

**Table 3.** The Results of MANOVA Test of Assessment for learning dimensions by gender

Effect	Value	F	Hypothesis df	Error df	Sig.	
Gender	Pillai's Trace	.350	9.259 <sup>b</sup>	6	103.00	.000
	Wilks' Lambda	.650	9.259 <sup>b</sup>	6	103.00	.000
	Hotelling's Trace	.539	9.259 <sup>b</sup>	6	103.00	.000
	Roy's Largest Root	.539	9.259 <sup>b</sup>	6	103.00	.000

Table 3 presents four types of tests, namely Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root, were provided. Using Wilks' statistics, the results showed that there was a significant effect of gender on the six dimensions of assessment for learning literacy,  $\Lambda = .650$ ,  $F(6, 133) = 9.259$ ,  $p = .000$ . These results indicate that male and female students reported different perspectives on teachers' role as an assessor, pedagogy expert, student partner, motivator, learner, and stakeholder partner.

A follow up test showed that the differences were found in the following two dimensions, i.e. pedagogy experts and teacher learners. Female pre-service English teachers reported a higher role as pedagogy experts ( $M = .034$ ,  $SD = .388$ ) compared to male students ( $M = -.154$ ,  $SD = .530$ ),  $t[137] = -2.040$ ,  $p = .043$ . Similarly, female pre-service teachers also reported a higher role as teacher learners ( $M = .043$ ,  $SD = .403$ ) compared to male students ( $M = -.192$ ,  $SD = .556$ ),  $t[137] = -2.446$ ,  $p = .016$ . No other significant differences were found in this dimension by the students' gender.

**Table 4.** The Results of MANOVA Test of Assessment for learning dimensions by Expected Education

Effect		Value	F	Hypothesis df	Error df	Sig.
Expected Education	Pillai's Trace	.176	3.136 <sup>c</sup>	6.000	107	.007
	Wilks' Lambda	.259	2.581	12.000	208	.003
	Hotelling's Trace	.747	2.691 <sup>b</sup>	12.000	206	.002
	Roy's Largest Root	.329	2.799	12.000	204	.001

Table 4 shows four types of tests, namely Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root, were provided. Using Wilks' statistics, the results showed that there was a significant effect of expected education on the six dimensions of assessment for learning literacy,  $\Lambda = .259$ ,  $F(6, 133) = 2.581$ ,  $p = .003$ . These results indicate that students with different expected education levels reported different perspectives on teachers role as an assessor, pedagogy expert, student partner, motivator, learner, and stakeholder partner.

A follow up test showed that the difference was found in the teacher's role as teacher's learners ( $F[3, 134] = 5.32$ ,  $p = .00$ ). The result from the Tukey post hoc analysis showed students expecting to pursue Ph.D. degree reported higher perception on teachers role as teachers learners ( $M = .13$ ,  $SD = .53$ ) compared to those expecting an undergraduate degree ( $M = -.01$ ,  $SD = .51$ ). No other significant differences were found in this dimension by the students' expected education.

## 5. Discussion

This section discusses the main findings of this study, particularly regarding the literacy dimensions of teacher assessment for learning (AfL), with an emphasis on the contribution of theory and practice.

The main objective of this research is to examine teacher candidates 'understanding of AfL teachers' literacy. Empirical evidence obtained from confirmatory factor analysis shows the existence of each item as a construct indicator that refers to the AFL literacy model proposed by Alonzo (2016), and these items are arranged in six dimensions of teacher AfL literacy. The six dimensions of teacher AfL literacy emerged as conceptualizations of teacher AfL literacy highlighting the primary role of teachers in using assessment to support student learning effectively and to ensure the development of stakeholder assessment literacy.

Previous conceptualizations of teacher assessment literacy as constructs with overarching dimensions are supported by the findings of this study, but the dimensions that emerge are somewhat different from those previously used and described by other studies (Fulcher, 2012; Mertler & Campbell, 2005; Stiggins, 1999). This is because the definition of teacher assessment literacy is not in line with the AfL principles. Most of the existing frameworks and models in previous researches, as expressed by Alonzo (2016) are on teacher knowledge and skills related to measurement principles rather than on the teacher's role in classroom assessment which aims to support students to take more responsibility. Teachers' strict adherence to measurement principles does not take into account the context-dependent nature of assessment (Brookhart, 2003; Moss, 2003; Smith, 2003), and there are other important teacher assessment skills that are more valuable in enhancing student learning (Hattie, 2008).

The dimensions that emerge in this study reinforce a broader conceptualization of teacher AfL literacy. In particular, teacher abilities related to the measurement principle are clustered under one

factor only (Factor 1: Teacher as assessor), and there are five other dimensions that contribute to the measurement of teacher AfL literacy. These include the role of the teacher in using assessment information to plan teaching and learning activities (Teacher as Pedagogist); use assessment to ensure high student motivation (Teacher as Motivator); involve students in learning and teaching (Teachers as Student Partners); reflect on their assessment experiences to identify their professional development needs (Teacher as Teacher Learners); and ensuring literacy assessment of parents / guardians and society in general (Teachers as Stakeholder Partners). These six dimensions provide an explicit link between teachers' ability to assess student learning and other abilities that require the use of assessment information to support student learning, including teacher gains in their assessment experience and stakeholder assessment literacy.

In addition to having strong empirical evidence to support the six dimensions of teacher AfL literacy that emerged from this study, its multidimensional and multifunctional features bring together various theoretical models of teacher assessment literacy, thus creating a more comprehensive model of teacher AfL literacy. As stated by Alonzo (2016), existing theoretical models of teacher assessment literacy are used, both for instructional purposes to guide teacher classroom practice (for example, Brookhart, 2006; Cowie & Bell, 1999; Davison, 2008; Wiliam & Thompson, 2008), or for the evaluation of teacher assessment practices (eg, component dimensions of Harlen, 2007; Hill & McNamara, 2012). Unlike function-specific models, the AfL teacher literacy tool has incorporated these functions and can be used both as an instructional guide and for evaluation purposes.

Teacher AfL literacy contributes to the expansion of the existing theoretical model, not only in terms of establishing what dimensions constitute teacher AfL literacy but also by the inclusion of performance descriptions of the five levels of performance for each indicator. The dimension descriptions describe the primary role of teachers involved in using assessment to support student learning effectively, while the criteria and standards provide tools with which to self-reflect and evaluate assessment practice and for professional development. The level and standard descriptions in these tools address one of the gaps in existing teacher assessment tools, particularly in relation to the absence of a description of what teachers can actually do, as identified by Bailey and Brown (1995) and Inbar-Lourie (2008). Also, the adherence of the tool to the AfL principle.

## **6. Conclusion**

The aim of the present research was to examine pre-service English teachers' literacy of assessment for learning in Indonesia and Malaysia. The most obvious finding to emerge from this study is that pre-service English teachers in this study reported that they possessed the ideal roles of teachers in assessment for learning, as reflected in the six dimensions of literacy of assessment for learning, namely teachers abilities in relation to the measurement principle, teachers' roles in using assessment information to plan teaching and learning activities, teachers' use of assessment information to ensure high student motivation, teachers' roles in involving learners in learning and teaching, teachers' reflection on their assessment experiences to identify their professional development needs, and teachers' roles in ensuring literacy assessment of parents / guardians and society in general. In addition to the six dimensions, this study also revealed significant differences in the pre-service English teachers report of their understanding of the six dimensions of literacy of assessment for learning in relation to their gender and their expected education.

## **7. Suggestions**

The recommendations of future studies could be carried out by the many stakeholders related to educational entity. For the teachers in-service teachers, the topic of assessment could be an intriguing qualitative topic of choice for their final year project, focussing on their own and peers experience in implementing assessment while undergoing practicum in school. For school organisations, the use of Alonzo (2016) could be adopted and carried out among the staff, not only among the English in-service teachers. This data could then be used in planning for professional development of the teachers. The action research data from the schools could be expended among the policy makers to address the issues of assessment enhancement at a larger scale. The current

teaching scenario during COVID 19 pandemic which require the adoption of online assessment is a stronghold topic for research. These recommendations is for all educational setting regardless of geographical location.

## 8. Co-Author Contribution

The authors affirmed that there is no conflict of interest in this article. All authors converged in carrying out the research to each's expertise respectively.

## 9. Acknowledgements

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