LANGUAGE ASSESSMENT LITERACY FOR TEACHERS: THE WHAT, WHY, AND HOW OF IMPROVING YOUR ASSESSMENT SKILLS

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ABSTRACT

Language Assessment Literacy (LAL) is a growing area of research of second language assessment with implications for both language teachers and researchers. While LAL is becoming an increasingly discussed topic in assessment research communities (e.g., Coombe et. al., 2020; Erickson, 2020; Maaoui & Tsagardi, 2020), this topic has yet to be fully translated into teaching and professional development circles. To help fill this gap, we hope to introduce LAL to a broader audience by explaining what LAL is and why it matters for second language teachers and professionals, as well as provide suggestions for how to improve your own LAL. We hope that this overview will not only inform but inspire K-12 and higher education teachers, administrators, and others in the field of second and foreign language learning to reflect and seek additional professional development in this important area.

LAL’S PREVALENCE IN ASSESSMENT

Language Assessment Literacy (LAL) is becoming a widely discussed topic in the field of language assessment. With over 1,200 LAL-related papers on Google Scholar, an
exponentially growing number of peer-reviewed LAL articles on ProQuest database, and conferences addressing LAL, from the International Language Testing Association’s (ILTA) two LAL-related sessions this year (LTRC, 2022), to the first-ever dedicated LAL conference (Applied Linguistics and Language Assessment, 2022), LAL is being widely discussed in the language assessment community. This growing interest in LAL within the language assessment community, however, appears to have created a gap in language assessment knowledge between researchers and language teachers (e.g., Fulcher, 2012; Kremmel & Harding, 2020). To address this gap, we aim to provide a comprehensive discussion of what LAL is, why it is important for language teachers, and how they improve their LAL through teacher training programs.

WHAT IS LANGUAGE ASSESSMENT LITERACY?

The literature on language assessment literacy (LAL) has its roots in Stiggins’ seminal paper (1991) that posed two underlying questions: 1.) Who is an assessment literate person?, and 2.) How assessment literate might various stakeholders be? Since then, a considerable number of studies have been published to define and explore the concept through the lens of theory conceptualizations and operationalizations.

Defining LAL

A broad definition of LAL was proposed by Inbar-Lourie (2008), who defined LAL as “the knowledge stakeholders need in order to conduct language assessment activities” (p. 258), attempting to deconstruct it based on the constructs or variables associated with the term. Inbar-Lourie defined LAL as the integration of two different dimensions between “assessment literacy skills and language-specific competencies” (pp. 389-390). This definition emphasizes the essential LAL competency dimensions that include the description of the traits that need to be
assessed (the ‘what’), the assessment method of how language should be assessed (the ‘how,’
and the rationale for the language assessment (the ‘why’). She emphasized that the ‘why’
dimension needs to be discussed first prior to the ‘what’ and the ‘how.’ In order to be literate in
assessment, Inbar-Lourie contends that someone needs to have the ability to critically think about
the purpose, the tools, the testing conditions, and the potential results of an assessment. However,
this definition accentuates assessment literacy more than language competency, and the
integration of the two is less prominently discussed.

Due to the need to balance and symmetrize this definition, Fulcher (2012) conceptualized
three aspects of assessment (i.e., contexts, principles, and practices) that underpin the solid
foundation of LAL. He notes that LAL should include 1.) an understanding of historical, social,
political, and philosophical frameworks about the origins, reasons, and impacts that help
someone understand the contexts of the assessment, 2.) comprehension of the processes,
principles, and concepts that function as the guidance for the practical purpose, and 3.) the
knowledge, skills, and abilities in the operationalization of language testing and assessments. As
such, Fulcher expanded the definition of LAL to include:

“The knowledge, skills and abilities required to design, develop, maintain or
evaluate, large-scale standardized and/or classroom-based tests, familiarity with
test processes, and awareness of principles and concepts that guide and underpin
practice, including ethics and codes of practice. The ability to place knowledge,
skills, processes, principles and concepts within wider historical, social, political
and philosophical frameworks in order to understand why practices have arisen as
they have, and to evaluate the role and impact of testing on society, institutions,
and individuals.” (p.125).

Though there appears to be some agreement toward the field’s acceptance of Fulcher’s
(2012) definition, it remains problematic in the way that it underscores assessment literacy skills
as the central point of LAL and overlooks much of language competency. Drawing upon these
definitions, Kremmel and Harding (2020) attempted to establish a more operational and concrete
interpretation of LAL by providing nine dimensions of LAL, echoing Taylor’s work (2013) which established eight dimensions of LAL.

1. Developing and administering language assessments
2. Assessment in language pedagogy
3. Assessment policy and local practices
4. Personal beliefs and attitudes
5. Statistical and research methods
6. Assessment principles and interpretations
7. Language structure use and development
8. Washback and preparation
9. Scoring and rating

Kremmel and Harding (2020) address the disproportionality issue that is found in Inbar-Lourie's (2008) and Fulcher’s (2012) definitions. Despite establishing a link between assessment literacy and language competence and recognizing both as two equally important in LAL, Kremmel and Harding (2020) did not offer an established definition of LAL. Therefore, we would like to define LAL as follows: the knowledge, skills, and abilities needed to understand both the conceptual framework of test development (e.g., assessment principles, policies, test qualities, test administration) and language competency (e.g., language structure and language use) in order to make appropriate judgments about how a particular unit of language structure/use should be assessed. Keeping our new definition in mind, we will next explore major themes in LAL, LAL’s importance, and LAL teacher training.

MAJOR LAL THEMES

With the launch of the Standards for Teacher Competence in Educational Assessment of Students (AFT, NCME, & NEA, 1990) and Stiggins’ (1991) work, the concept of LAL has reshaped the field of language assessment. Various aspects of LAL have been investigated over the past 20 years including in language skills (e.g., Crusan et al., 2016) and using different
approaches for LAL (e.g., Berry et al., 2017). LAL studies have taken place in both K-12 contexts (e.g., Butler et al., 2021; Yamtim & Wongwanich, 2014) and in higher education contexts (e.g., Deygers & Malone, 2019; Xu & Brown, 2016). These studies have helped identify major issues and trends in LAL research.

The concentration of the existing research seems to center around four major areas: 1.) teachers’ LAL (e.g., Giraldo, 2021; Levi & Inbar-Lourie, 2019; Newfields, 2006), 2.) LAL for various stakeholders (e.g., Giraldo & Murcia, 2018; Malone, 2013; Yan & Fan, 2021), 3.) implications of LAL (e.g., Giraldo, 2019; Mellati & Khademi, 2018; Volante & Fazio, 2007) and 4.) contextually-situated LAL studies. The fourth concentration, contextually-situated LAL studies, which follow a constructivist sociocultural approach, represent studies that have taken place and focused on LAL in certain countries and regional contexts. Table 1 highlights examples of these studies.

Table 1

<table>
<thead>
<tr>
<th>Context</th>
<th>Example research</th>
<th>Context</th>
<th>Example research</th>
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<tbody>
<tr>
<td>Bangladesh</td>
<td>Sultana (2019)</td>
<td>Iran</td>
<td>Firoozi et al. (2019); Watmani et al. (2020)</td>
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<tr>
<td>Chile</td>
<td>Villa Larenas (2020)</td>
<td>Kuwait</td>
<td>Mohamed (2021)</td>
</tr>
<tr>
<td>China</td>
<td>Jiang (2020); Koh et al. (2018)</td>
<td>Malaysia</td>
<td>Ariff et al. (2019)</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Prasetyo (2018);</td>
<td>Turkey</td>
<td>Mede &amp; Atay (2017);</td>
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</tbody>
</table>

Examples of contextually-situated LAL studies
The growth of LAL can not only be seen in terms of topics researched but also in its growing interest worldwide in English as a second, foreign, and/or additional language contexts. Through these LAL-related studies and the prevalence of LAL as a topic of discussion in the field, one can see the depth and breadth of this growing field on display.

**WHY DOES LAL MATTER?**

LAL is an important concept not only for researchers but for teachers and other EL professionals. LAL is especially salient for teachers since they are the main actors who introduce students to formal instruction, of which includes assessment (Leighton et. al., 2010). With previous research indicating that approximately half of a teacher’s work involves assessment (Plake & Impara, 1996), and that successful assessment has been shown to foster learning (Berry et. al., 2019), it is essential for teachers to become more literate in assessment and impact student learning in a positive way.

**Limited LAL Knowledge Among Teachers**

Considering that LAL research has spanned multiple decades, the amount of time and focus devoted to assessments in class and the importance of LAL for teachers, the question of whether teachers’ LAL has improved since Stiggins’ (1991) work is worth exploring. Plake and Impara (1996) found that teachers have not improved in their LAL, and over a decade later, Popham (2009) and Leighton et. al., (2010) asserted that a majority of practicing teachers lacked the necessary skills with Fulcher (2012) reporting similar results.
Part of a teacher's job is to write test items, score student performance, interpret student scores, and use students' test scores in decision making. Yet, teachers might feel reluctant or ill-prepared for these classroom practices (e.g., Alderson, 2005; Popham, 2009). Researchers have found that teachers lack the assessment knowledge needed to construct classroom tests (e.g., DeLuca & Klinger, 2010; Xu & Brown, 2017). Even when teachers are aware of the assessment practices, they may not always follow best practices or create quality assessment tasks (Hakim, 2015). This indicates that there is a need for teachers to possess sufficient knowledge of language assessment and effectively apply it in their classrooms.

IMPROVING LAL THROUGH TEACHER TRAINING

It is important for LAL to be introduced in teacher training programs including pre-service and in-service training. Researchers such as Popham (2009) have claimed that practicing teachers lack educational assessment knowledge. Arguing that teachers should acquire the necessary background knowledge and skills in language assessment in their teacher education programs, he notes that only in recent years have teachers been provided with assessment literacy awareness. Due to LAL providing teachers with a purposeful assessment perspective in alignment with instruction (Popham, 2009), it is important that these competencies are conveyed to both in-service and pre-service teachers.

When developing assessments, teachers should be encouraged to involve students in the assessment process and use assessment for learning in addition to assessment of learning (see for example, Brookhart, 2011; Lee, 2007). Assessment of learning assesses students on what they have learned in the course, whereas assessment for learning students are active participants in identifying their strengths and weaknesses (Gardner, 2006). While assessment may be
traditionally conceptualized as assessments of learning, current assessment practices such as self-assessment, peer assessment, and portfolio assessment as classroom assessment tools are ways to both assess of and for learning.

Beyond introducing teachers to LAL concepts, it is important to help teachers identify what parts of their current practice constitute LAL. In a study on teacher beliefs about the real purposes of assessment, Solomonidou (2020) found that Greek teachers report not being familiar with most assessment terms. However, a close examination revealed that the same teachers were in fact implementing appropriate assessment techniques but were referring to them as teaching practices rather than LAL competencies. To reduce the tendency towards low self-reported LAL skills, Erickson (2020) provides a teacher-friendly entryway to assessment literacy. Posing questions such as “do my assessments reflect the view of language and language use expressed in the curricula?” and “what is the balance between assessments focusing on speaking, writing and doing?,” the author invites the teachers to reflect on their LAL, and thereby improve it.

Teacher Training Content

There are several main focal areas for what teacher preparation programs and in-service teacher training might teach in terms of LAL. Davies (2008) offers a three-part roadmap: assessment skills (e.g., writing test items, statistical analysis), theoretical knowledge, and language testing principles (e.g., validity, reliability, and washback). Additionally, Popham (2009) emphasizes two major teacher decisions on assessment: decisions about classroom assessments and decisions about accountability assessments. For teachers who advocate assessment for learning instead of assessment of learning, Popham (2009) proposes 13 areas for teachers to be aware of, including the main purpose of assessment, reliability, and validity of
assessments, and designing and implementing formative assessments. Integrating these frameworks and concepts into training would provide a solid foundation in language assessment.

To make LAL instruction a reality, Fulcher (2020) proposed a hands-on approach to LAL in an MA program designed for language teachers. In this study, Fulcher not only expanded his 2012 definition of LAL but also focused on the gap between theory and practice in LAL, criticizing Popham’s (2009) LAL definition and Brookhart’s (2011) LAL standards for contributing to the limitations in the LAL curriculum and content. Creating an apprenticeship model in which the teachers partake in activities that are closely related to assessment, he asserted that LAL activities can provide a solid assessment foundation for practicing teachers that unites theory and practice.

**LAL Research Implications for Teacher Training**

Several implications regarding improving teachers’ LAL can be drawn from LAL literature. Existing studies center around the need for training for teachers (e.g., Mertler, 2009; Yan & Fan, 2018) and other stakeholders (Taylor, 2013). Drackert et. al. (2020) emphasize the importance of context-specificity of these proposed training programs that should respond to the different demands experienced by different target teacher groups. Maaoui and Tsagardi’s (2020) study also advocates for context-based training programs. The findings of their study, which investigated Tunisian teachers’ LAL, disclose various factors that dominate teachers’ LAL in their particular context. Moreover, Drackert et. al. (2020) suggest that in addition to focusing on the requirements of different teaching contexts, language assessment theory should be more cognizant of and respond to classroom-based assessments and classroom-based assessment literacy. As such, the researchers highlight the need to focus on the real-time happenings of classroom-based assessment and call for practical solutions to these issues.
Teacher attitudes and beliefs are another implication from current LAL research. Berry et. al. (2019) demonstrate that when asked, teachers prefer to receive assessment materials for immediate use rather than training on LAL. While this tendency could be interpreted as teachers’ lack of time to prepare these assessment materials, it could also be argued that due to a lack of LAL, teachers do not feel confident about receiving LAL training and then implementing what they have learned in their classroom. A remedy for this could be through LAL training programs in which teachers not only learn about assessment but also implement new assessments in their classrooms and reflect on the process. To answer these questions, the researchers call for more classroom-based research to better understand teachers’ beliefs and attitudes about and practices in assessment, and to help develop better solutions for their LAL needs.

The need for teachers to have an understanding of both the 1.) conceptual framework of test development and 2.) language competency to make appropriate judgements in regard to how language structure/use should be assessed have been echoed by LAL researchers over the past several decades. Considering our proposed definition of LAL and its dual focus on both aspects, as well as the fact that all teachers will have differing background knowledge and proficiency in both areas, we now turn to practical suggestions and resources that will be helpful in observing the connections between test development and language competency and increasing teacher knowledge in both areas.

**HOW TO IMPROVE YOUR LAL**

Teachers can improve their LAL through a variety of avenues. As Fulcher (2012) noted that the “most common suggestion (for teachers) was for useful electronic resources with links to
“interesting websites, activities, and additional information” (pp. 125), we would like to use Table 2 to highlight some useful resources and information for teachers and other stakeholders.

### Table 2

**Useful LAL resources for teacher and other stakeholders**

<table>
<thead>
<tr>
<th>Resource type</th>
<th>Title</th>
<th>Additional information</th>
</tr>
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<tbody>
<tr>
<td>Books</td>
<td><em>Designing and analyzing language tests</em></td>
<td>This book was written by Carr in 2011 and provides an in-depth theoretical and practical basics with regards to language testing. Examples include familiarizing the readers with different types of tests, question formats, and rating criteria. It also provides step-by-step practical examples of statistical implications in language testing.</td>
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<tr>
<td></td>
<td><em>Testing for language teachers (3rd ed.</em>)*</td>
<td>This book was written by Hughes and Hughes in 2020. Its earlier editions were published in 1989 and 2003. The book combines theories and practical recommendations so that teachers can have a wide knowledge that covers main principles in language assessment. In the 2020 edition, Hughes and Hughes updated the book with the latest research findings in language assessment. The new edition adds a discussion of the recent developments in the use of technology in language testing, teachers’ responsibilities, non-testing approaches in assessment, and a checklist to help teachers select appropriate tests.</td>
</tr>
<tr>
<td>Web-based resources</td>
<td>Resources in Language Testing webpage</td>
<td>Includes resources on language testing such as books, articles, audio, videos, and news headlines. The website includes a plethora of useful information and language assessment topics such as validity, reliability, integrated assessment, and statistics. URL: <a href="http://languagetesting.info/gf/glennfulcher.php">http://languagetesting.info/gf/glennfulcher.php</a></td>
</tr>
<tr>
<td></td>
<td>Standards for Teacher Competence in Educational Assessment of Students</td>
<td>Aims at educating test developers about the seven standards of assessment, assessment literacy, and measurement practices. It is a rich resource for teachers on how to develop and use a test that meets the seven standards.</td>
</tr>
<tr>
<td><strong>TALE (Teachers’ Literacy Assessment Enhancement Project)</strong></td>
<td>This EU-funded project serves as an infrastructure for language teachers to improve the quality of their assessment practices. It offers eight courses including the ABCs of assessment, assessing the four language skills, the role of feedback in assessment, alternative assessment, and test impact/washback. URL: <a href="https://taleproject.eu/">https://taleproject.eu/</a></td>
<td></td>
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<tr>
<td>The Center for Excellence in Learning and Teaching, Iowa State University</td>
<td>Includes various informative and illustrative resources about formative and summative assessment, classroom assessment techniques, peer assessment, and guidelines for student outcome assessment at the higher education level. URL: <a href="https://www.celt.iastate.edu/">https://www.celt.iastate.edu/</a></td>
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<tr>
<td>The European Association for Language Testing and Assessment (EALTA)</td>
<td>EALTA is a non-profit organization developed in Europe to improve language assessment practices. It is a rich resource for language assessment with several active Special Interest Groups and an annual conference that teachers can attend. EALTA requires membership, however, Individual and Associate memberships are free. URL: <a href="https://www.ealta.eu.org/index.htm">https://www.ealta.eu.org/index.htm</a></td>
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<tr>
<td><strong>MOOCs</strong></td>
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<tr>
<td>Coursera’s <em>Assessing achievement with the ELL in mind</em> course</td>
<td>(McLaughlin &amp; Manos, 2022) 6-week course with a focus on formative and summative assessment, designing rubrics and project and task-based assessment.</td>
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<tr>
<td>the OPEN Network’s <em>Assessment of English Language Learners</em> course</td>
<td>(OPEN, 2022) The course covers types of assessment used in language teaching, practice new assessment techniques &amp; reflect on results. Available at: <a href="https://www.youtube.com/watch?v=3a-0znKqFBw">https://www.youtube.com/watch?v=3a-0znKqFBw</a></td>
<td></td>
</tr>
<tr>
<td>the Open University’s <em>Assessment in second and foreign languages</em></td>
<td>(OpenLearn, 2022). What should be assessed in secondary schools, how can assessment foster learning and challenges to effective assessment. Available at: <a href="https://www.open.edu/openlearn/education-develop">https://www.open.edu/openlearn/education-develop</a></td>
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</table>
As can be seen in Table 2, there are various useful resources that teachers, researchers, and administrators in various contexts might find useful. The listed books are rich and useful resources written by language testing experts. For example, Carr’s (2011) book provides teachers with a link to video illustrations of how to conduct some statistical measurements such as, how to measure the reliability of your test, and how to analyze and judge the validity of your multiple choice tests. Both Carr’s (2011) and Hughes & Hughes (2020) address general assessment, while Manning’s (2016) book focuses on assessing English for Academic Purposes (EAP). These books provide a solid foundation in assessment for language teaching and learning purposes and could serve as a reference guide to teachers and other stakeholders.

Additionally, teachers can improve their LAL by consulting online resources, or participating in Various Massive Online Open Online Courses (MOOC). Several options are listed in Table 2 above. These online resources provide recent information on second language assessment which will provide teachers with content to improve their assessment literacy. One great benefit of these resources is the ability to remotely receive professional development, which is a benefit to teachers who have busy teaching schedules or live in rural or remote areas.

On a final note, K-12 and higher education teachers, administrators, and others in the field of second and foreign language learning are welcome to consider reaching out to other teachers or institutions for training and instruction. Asking other colleagues who are in charge of tests and assessments can provide in-house training for teachers. Moreover, asking experts in the field of language assessment could be one way to not only receive LAL training but help bridge the gap between teachers and researchers.
CONCLUSION

This paper started by introducing LAL and then presented a summary of the literature that covered LAL from different perspectives. With a dedicated section reviewing how researchers defined LAL, we then proposed a cumulative definition that addresses LAL from a language teachers’ perspective. Arguing that every language teacher is a language tester one way or another, we argued that teachers should aim to continuously build their LAL knowledge and provided some practical advice that teachers should find useful in their teaching contexts to help them gain LAL knowledge with different dimensions in LAL covered based on teachers’ needs.

In conclusion, with the increasing popularity of assessment literacy in the language assessment field and different educational fields, LAL’s presence in language teachers’ training programs and their professional careers is becoming essential. This anticipation of LAL’s increasing presence is reflected by recent calls from researchers in the field who stress the importance of including LAL training in teachers' qualifications (for example, see Coombe et al., 2020; Lam, 2019). The paper echoes this call, and we hope it provides teachers with useful resources and information to embark on their own LAL development journey.

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REFERENCES


Center for Excellence in Learning and Teaching. (2022). *Iowa State University Center for Excellence in Learning and Teaching*. [https://www.celt.iastate.edu/](https://www.celt.iastate.edu/)
https://doi.org/10.1186/s40468-020-00101-6

https://doi.org/10.1016/j.asw.2016.03.001


https://doi.org/10.1177%2F0265532219826390


http://dx.doi.org/10.7575/aiac.ijels.v.3n.4p.42


https://doi.org/10.1177/0265532208090158


https://doi.org/10.1177%2F1362168816684366
https://doi.org/10.1080/15434303.2019.1674855

https://doi.org/10.1177%2F0265532214554321

https://doi.org/10.1016/j.system.2019.01.006

https://doi.org/10.1186/s40468-021-00130-9

https://doi.org/10.1016/j.asw.2008.02.003

https://doi.org/10.1080/09695940903565362


[http://hdl.handle.net/10871/126292](http://hdl.handle.net/10871/126292)

[https://dx.doi.org/10.24093/awej/vol10no2.33](https://dx.doi.org/10.24093/awej/vol10no2.33)


OPEN. (2022). *Current massive open online courses (MOOCs)*. Online Professional English Network.  
[https://www.openenglishprograms.org/MOOC](https://www.openenglishprograms.org/MOOC)


[https://doi.org/10.1016/B978-012554155-8/50005-3](https://doi.org/10.1016/B978-012554155-8/50005-3)

[https://doi.org/10.1080/00405840802577536](https://doi.org/10.1080/00405840802577536)


https://doi.org/10.1177/0265532213480338


https://doi.org/10.1080/15434303.2014.960046


https://doi.org/10.1016/j.sbspro.2014.01.696
