
Developing Assessment Literacy for Classroom-Based Formative Assessment

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Abstract

Formative assessment (FA) has been increasingly recognised as a powerful tool to improve teaching and learning, and thereby increase educational effectiveness. As such, FA has been written into government directives and curriculum standards; and incorporated into teacher education programmes. At the classroom level, however, teachers have found FA a formidable task that is difficult to implement. This has been attributed to the teacher's lack of assessment literacy, among other reasons. In this guest-editor introduction, we frame the special issue and its scope by highlighting the main issues involved. We then briefly introduce the 10 articles which we believe, taken together, advance our understanding of teacher formative assessment literacy and its development.

Keywords: *formative assessment, teacher assessment literacy, teacher education*

This introductory article frames the special issue in terms of the focus and the scope of the topics involved. When we began the call for papers, we meant to focus on the development of teachers' assessment literacy in enacting formative assessment in the language classroom. This is still the central theme of the special issue. However, we have been alarmed the last couple of years at how prevalent misinterpretations are about the central construct of formative assessment, especially at the tertiary level in China. "Misappropriation of the formative assessment label" (Shepard, 2008, p. 279) is a pervasive issue elsewhere (Heritage, 2007; Popham, 2006). While we agree that contextual and cultural explanations of this misappropriation (e.g., Chen et al., 2013) are justified, it is not a healthy sign to allow apparent misinterpretations to get entrenched before teachers are asked to implement assessment policies that involve FA. We contend that conceptual clarity about FA is at the heart of assessment literacy. It is a basic condition for any further competence to be developed for the

enactment of FA in the classroom. We, therefore, feel the need to begin this article by revisiting the central concept of FA.

1. Formative Assessment

Formative assessment refers to a systematic process in which evidence about student learning is gathered, interpreted, and used in order to improve learning. This definition entails two often intertwined perspectives, i.e., FA as a process and FA as a function. The former defines what FA is, while the latter stipulates what FA is for.

The process view of FA is best illustrated by Heritage (2007) when she was contrasting FA with the static snapshot metaphor of interim or benchmark assessments: “to be valuable for instructional planning, assessment needs to be a moving picture — a video stream rather than a periodic snapshot” (p. 141). Researchers have attempted to capture these “moving pictures” as they happen (e.g., Ruiz-Primo & Furtak, 2007; Wylie & Lyon, 2013). Gu (2021), for example, operationalised the FA process as spiralling cycles of four steps (eliciting learning evidence, interpreting the evidence, providing feedback, and taking follow-up action), all revolving towards successful mastery of the learning target.

The function view of FA, on the other hand, has been clearly spelt out by Davison and Leung (2009) as informing and forming, or by Andrade (2010) as “informed action” (p. 345). In the last chapter summarising the influential Routledge volume, *Handbook of Formative Assessment*, Andrade (2010) concluded that “formative assessment refers to the purposes of assessment information, not to particular assessment procedures or instruments” (p. 344). These purposes include: “(1) providing information about students’ learning to teachers and administrators in order to guide them in designing instruction; and (2) providing feedback to students about their progress in order to help them determine how to close any gaps between their performance and the targeted learning goals” (pp. 344-345).

If we put the two perspectives together, FA can be summarised into the following table.

	Informing	Forming
Eliciting evidence	√	
Interpreting evidence	√	
Providing feedback	√	√
Enabling opportunities for action		√

Everything in the table revolves around the target of teaching, learning, and assessment that is under attention. The spiralling cycles will only stop when the target is reached, or when a judgment is made to postpone or abandon the target.

It should be noted that neither the process view nor the function view of FA rules out the possibility that an instrument such as a well-designed test can be used formatively (Carless, 2011; Lam, 2013). In fact, FA does not stipulate a particular format for evidence gathering. A whole spectrum of tools ranging from the very informal, “on-the-fly assessment” (e.g., classroom observations) to the formal and planned “curriculum-embedded assessment” (e.g., unit tests) can be included in the FA arsenal (Shavelson et al., 2008). What makes an

assessment tool formative, however, is not the format but whether and how the information elicited is made use of to improve teaching and learning. That said, tools are designed for different purposes. Very often, a test not designed for formative purposes can provide very little diagnostic information about student learning that can be made use of to adjust teaching and learning practices.

FA can be done by teachers, learners, and their peers. These same people are also consumers of assessment information. After information about student learning is obtained, the teacher can make informed decisions to adjust instruction; and the learners should also make use of the information to modify their learning strategies and actions. In fact, the ultimate goal of FA can only be achieved when learners are actively involved in this process. That being said, inside the classroom, the main responsibility for enacting formative assessment rests with the teacher who bridges between the curriculum, the textbook, and the delivery of teaching that triggers the learning of curriculum targets.

This leads us to the real theme of this special issue, the development of the teacher's assessment literacy for formative assessment.

2. Assessment Literacy

When teachers are told that FA should best be integrated into the teaching and learning process, they need to be shown *how*. Assessment experts in the teacher education field knew right from the beginning the challenges faced by teachers. Stiggins was quoted as saying that "The only important formative assessment priority is to help practitioners learn how to do it productively" (Andrade, 2010, pp. 348-349). Popham (2010) titled one of his articles as "Wanted: A formative assessment starter kit". Some efforts have been seen developing practical tools for teacher education (e.g., Wylie & Lyon, 2013), but most efforts on assessment literacy have not reached the classroom.

Since the early 1990s, assessment "competence" (American Federation of Teachers et al., 1990) and "literacy" (Stiggins, 1991) have received much attention. Considerable efforts have been directed towards theoretical conceptualisations and empirical descriptions of the assessment-capable teacher (Booth et al., 2014; Brookhart, 2011; Pastore & Andrade, 2019) and other key stakeholders (Taylor, 2013). The language assessment field has also devoted attention to conceptualising "language assessment literacy" (Inbar-Lourie, 2013).

In early conceptualisations of assessment literacy, the assessment-literate teacher should be skilled in choosing and developing assessment methods, in administering, scoring, grading, and interpreting the results, in using assessment results to make decisions, and in communicating assessment results to the relevant stakeholders. They should also be able to tell ethical and legal assessment practices from unethical and illegal practices (American Federation of Teachers et al., 1990). Knowledge and skills in making use of formative assessment were added later (Brookhart, 2011).

Recent years have seen a number of new models describing and explaining teacher assessment literacy. Xu and Brown (2016) conceptualised six levels of "teacher assessment literacy in practice": 1) the knowledge base, 2) teacher conceptions of assessment, 3) institutional and socio-cultural contexts, 4) teacher assessment literacy in practice, 5) teacher

learning, and 6) teacher identity (re)construction as assessors. Pastore and Andrade (2019) asked experts about assessment literacy which resulted in a three-component model with conceptual, praxeological, and socio-emotional dimensions. Herppich et al. (2018) saw teacher assessment competence as a learnable ability that allows a teacher to translate knowledge into a judgment through decision-making processes. Andrade et al. (2021) tried to situate teacher assessment literacy within a self-regulated learning framework which led to the conclusion that FA is essentially co-regulated learning.

3. Developing Teacher Assessment Literacy for Formative Assessment

The multidimensional and multi-layer nature of teacher assessment literacy for formative assessment also means that it is not an easy set of knowledge and skills for teachers to develop. Unfortunately, neither preservice nor in-service teacher education programmes have been shown to prepare teachers well for the task (DeLuca & Klinger, 2010; Heritage, 2020).

Empirical research on teachers' development of assessment literacy is beginning to emerge in recent years. For example, a collection of papers appeared in 2017 in *Assessment in Education: Principles, Policy & Practice* (DeLuca & Johnson, 2017). The collection included articles on teacher assessment literacy in tests as well as formative assessment for pre-service as well as in-service teachers in a number of educational contexts. One interesting theme consistently emphasised across the papers was "learning assessment by using assessment for your own learning" (p. 122). Apparently, a one-shot, top-down lecture type of teacher learning was less preferred than a model that involves teachers as reflective practitioners. Another consistent finding was that "learning to assess involves teachers driving their learning by selecting priorities that are meaningful to them" (p. 125). Learning to assess was also found to be best done when all stakeholders were involved in a coherent way.

One approach in scaffolding the teacher's development of assessment literacy is to provide concrete tools, the "starter kit" approach called for by Popham (2010). A special issue of the *Educational Assessment* journal appeared in 2020 that focused on tools for observing formative assessment practice (Wylie, 2020). While this is definitely a welcoming attempt in operationalising FA and capturing it as it appears in the classroom, as it were, Westbroek et al. (2020) reminded us that valued innovations often do not occur in classrooms not because of teachers' lack of competence but because of their perception that the change proposal is often not practical, given their busy schedules in achieving other competing goals. In this sense, it might be useful to plan for gradual and incremental implementation of FA practices; and provide "cost-effective heuristics" (p. 959) that help incorporate the FA innovation into their existing teaching practices.

Developing teacher expertise in using formative assessment is a worthwhile but difficult endeavour. Conceptual knowledge and even beliefs about FA are relatively easy to change. The praxeological aspects of FA (Pastore & Andrade, 2019), the connoisseurship (Sadler, 1989) or the FA artistry inside the classroom (Eisner, 2002) will take a very long time to evolve. Much more research is needed along these lines about teacher learning for classroom-based formative assessment.

4. This Special Issue

This special issue focuses on the development of assessment literacy for classroom-based formative assessment. It has 10 articles and lines up 15 authors, who come from different parts of the world, namely, Australia, Austria, China (Hong Kong and the mainland), New Zealand, Singapore, and the United States. In the first article, the guest editors contextualise the theme by introducing related constructs and mapping out the scope for the special issue. Next, Brookhart set the scene by offering a unique perspective on how the current assessment landscape is divergent from a better assessment future and what assessment literacy will look like in that future. The third and fourth articles are related to the development of assessment literacy in Hong Kong and the mainland of China. Davison reported on the impacts of a territory-wide teacher professional development programme on teachers' assessment literacy in conducting school-based assessment, which was part of the school-leaving exam in Hong Kong. Likewise, Li and Gu described how one EFL secondary-level teacher in the mainland of China had marked improvement in her classroom-based formative assessment literacy after participating in a 12-week professional development programme.

The fifth and sixth articles are about two novice university teachers' assessment identity and 48 secondary-level EFL teachers' conceptions of assessment respectively. Both studies were conducted in China's mainland. Gan and Lam explored how two beginning university English teachers constructed their assessment identity in the Chinese context, which filled an under-represented gap of teacher professional identity in language assessment. Adopting a narrative inquiry approach, Xu and associates investigated teachers' conceptions of assessment and how salient factors mediated their conceptions of assessment in the Chinese secondary school context. The next two articles (seventh and eighth) unpack two foci of teacher feedback literacy. Goh and Tan looked into five Singaporean teachers' assessment conceptions and their experience of feedback engagement from the variation theory perspective. Yeo experimented with an innovative triadic peer review approach with 24 English teachers from Myanmar and examined their perceptions towards this new method with a focus on the emotional aspect of student feedback literacy.

The penultimate article, written by Berger, investigated assessment difficulty estimation in ability, knowledge, and understanding of 420 pre-service language teachers in Austria. The findings provided suggestions on the design principles and implementations for difficulty-informed assessment courses. Last but not least, Yang and May reported on a case study, in which three EFL secondary-level teachers interpreted and then implemented learning-oriented assessment practices within an exam-driven context. The two authors noticed that the teacher informants' formative assessment literacy was enhanced near the end of the study.

Taken together, the 10 papers demonstrate that there is still a long way to go to develop teachers' classroom-based formative assessment literacy, given that individual, institutional and contextual factors may get in the way. With that said, the authors in this special issue disseminate some timely and exciting findings about continuous development of teacher language assessment literacy. To echo Brookhart's paper, the future is now, and this future definitely shapes a better assessment literacy landscape in the years to come!

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Chinese Abstracts

中文提要

发展基于课堂的形成性评估素养

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摘要: 目前,形成性评估用于改善教与学、提高教育质量的功能日益得到认可,已被写入政策文件和课程标准,并纳入教师教育计划。但就教师而言,在课堂上系统地实施形成性评估仍然是一项艰巨任务,因此,如何提高教师的形成性评估素养成为大家共同关心的问题。本文是本期特刊的介绍,首先,通过强调形成性评估素养所涉及的主要问题对本期特刊的定位及其涵盖范围进行介绍;其次,简要介绍收录于本期特刊的十篇文章。笔者希望本期特刊能够对促进教师形成性评估素养的理解及其发展起到抛砖引玉的作用。

关键词: 形成性评估;教师评估素养;教师教育

未来评估素养展望

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摘要: 本文对以下两个问题进行了讨论:(1)未来更好的评估与当前的评估环境有何不同?(2)未来评估素养会是什么样子? 答案将基于最近对评估领域研究的大规模回顾,为教师的教学和专业发展工作提供信息。本文将聚焦评估中正在发生以及将来会发生的变化,探究这些变化对教师、学校领导和学生的评估素养需求的影响。

关键词: 评估素养;评估未来;形成性评估

评估素养:改变文化,并让改变适应香港的文化

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摘要: 近年来,教师评估素养因其在学习和教学中的关键作用而受到广泛关注。随着最近对教师知识和技能建设的重视,相关理论和实证概念化不断涌现。其目的是做出高度情境化、公平、一致和值得信赖的评估决定,为学习和教学提供信息,从而有效地支持学生和教师的学习。本文探讨了在引入校本学习评估作为香港高风险中学评估改革的一部分后,中学英语教师评估素养的变化。本文利用近 4,500 名参加过评估改革头六年(2005-2011年)共同专业发展课程的教师完成的教师问卷调查,探讨了专业发展对教师评估素养的影响。尽管香港有根深蒂固的竞争性应试文化,对课程前后评估的定量和定性数据的分析表明,教师的态度、信心和实践发生了积极变化,特别是在使用评估标准、设计和实施方面适当的评估任务,让学习者更积极地参与评估过程,做出值得信赖的评估决定,并向学生提供有效的反馈和前馈,以改善学生的学习。本文研究的结果表明,如果教师得到很好的支持,评估文化的改变是可能的。本文还讨论了对评估改革和更普遍的教师评估素养发展的影响。

关键词: 评估素养;学习评估;校本评估;语言评估

发展教师课堂形成性评估素养——以一位中学英语教师为例

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摘要: 自从Black和Wiliam(1998)发表了极具影响力的研究综述,形成性评估在教育改革中愈发受到重视。21世纪初,中国颁布的英语课程标准明确指出教师应在课堂开展形成性评估。教师评估素养的缺乏制约了课堂形成性评估的开展。本研究设计并实施了为期12周的教师课堂形成性评估素养提升项目,旨在帮助五位中学英语教师提高形成性评估知识、信念和实践水平。项目以合作行动研究的形式开展,研究者与教师组成了实践共同体,以实现持续专业发展。本文以一位教师为例,介绍其课堂形成性评估素养的提高。作者使用NVivo 12对课堂录像和访谈进行转录和编码。基线数据表明,该教师缺乏开展形成性评估所需的知识、信念和实践方法,尤其缺乏明确的教学目标。此外,其评估目标并非提高学生核心素养,而课标明确要求高中英语课程目标是培养和发展学生的学科核心素养。项目结束时,该教师的形成性评估知识、信念和实践方法均得到显著提升;在课堂形成性评