

Developing Digital Formative Assessment Competence in Pre-Service English Language Teachers: A Conceptual and Methodological Framework

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Abstract: Digital platforms have widened opportunities for assessment for learning in English language education, yet the ability to administer online quizzes does not in itself constitute formative assessment competence. This conceptual article examines how pre-service English language teachers can be prepared to translate digital evidence into instructional decisions. Drawing on formative assessment theory, teacher assessment literacy, feedback literacy, the European Framework for the Digital Competence of Educators and recent syntheses of digital assessment research, the article develops a five-phase Digital Formative Assessment Pedagogy (DFAP) framework. Its phases—alignment, elicitation, interpretation, responsive action and reflective recalibration—are mapped onto teacher-learning activities, illustrative English as a foreign language (EFL) tasks and observable assessment criteria. A worked example demonstrates how teacher candidates can move from a digital writing task to diagnostic interpretation, actionable feedback and revision. The paper further proposes a performance-based rubric and a feasible future validation design. The contribution is a context-sensitive instructional synthesis, not a claim of experimentally established effectiveness. It argues that assessment competence should be evidenced by the quality of decisions made with digital information, rather than by the frequency of platform use. Implications concern initial teacher education, mentor-supported microteaching, accessibility, data protection and the evaluation of assessment practice.

Keywords: Pre-service English teachers; formative assessment; digital assessment literacy; assessment for learning; feedback literacy; teacher education; methodological framework.

1. Introduction: Assessment in English language teaching is not simply a means of certifying achievement. It also provides information that can help learners understand current performance and help teachers decide what to teach next. This formative function becomes particularly salient in language classrooms, where progress in speaking, writing, reading and listening is uneven, contextual and often difficult to represent with a single score. Digital systems can collect responses rapidly, display response patterns and organize feedback; whether those affordances improve learning depends on what teachers do with the evidence (Black & Wiliam, 2009; Børte et al., 2023). Pre-service teachers enter teacher education with considerable experience of being assessed but less

experience of designing assessments, judging ambiguous responses or supporting revision. Assessment literacy therefore requires more than knowledge of test formats. Xu and Brown (2016) portray it as a situated, dynamic professional practice. Recent scholarship on assessment literacy in digital environments similarly identifies a constellation of technological, interpretive and contextual competencies rather than a discrete set of software skills (Estaji et al., 2024).

An especially important challenge is the gap between producing digital data and making defensible pedagogical decisions. A dashboard can show that many learners selected the same incorrect option; it cannot, by itself, determine whether the underlying problem concerns language knowledge, task wording

or misunderstanding of instructions. Likewise, an automatically generated comment may be fluent without being aligned to the learning target. Preparing prospective teachers to question and act on evidence is therefore a methodological priority.

This article asks: (1) Which competencies constitute meaningful digital formative assessment practice for pre-service English teachers? (2) How can these competencies be developed through a sequenced methodology? (3) What evidence could demonstrate their development in teacher education? The aim is to construct an analytically grounded, practically usable framework and to specify how it might subsequently be evaluated.

2. THEORETICAL AND RESEARCH FOUNDATIONS

2.1 Formative assessment as an instructional process

Sadler (1989) showed that improvement-oriented assessment depends on an understanding of standards, comparison of current performance with those standards and action to close the gap. Black and Wiliam (2009) extend the analysis by emphasizing evidence that is elicited, interpreted and used by teachers, learners or peers to make decisions about next instructional steps. The decisive criterion is thus not whether an activity occurs during a lesson or uses a digital interface; it is whether the resulting information changes teaching or learning.

In EFL settings, a vocabulary poll may be formative when it reveals confusion about collocations and prompts targeted practice. The identical poll may be merely a record of attainment when its results are filed without follow-up. Teacher candidates need to learn this distinction through concrete decision-making tasks rather than definitions alone.

2.2 Assessment literacy and professional judgment

Teacher assessment literacy involves understanding purposes, task quality, interpretation, fairness and the consequences of decisions. Xu and Brown (2016) argue that practice is shaped by professional identity and institutional context. Yan and Pastore (2022) identify conceptual, practical and socio-emotional dimensions of formative assessment literacy, reminding educators that assessment also involves trust, relationships and learner agency. More recent reviews indicate that pre-service teachers' assessment development is influenced by personal and contextual factors, which cautions against a one-size-fits-all technology training model (Kainulainen & Tarnanen, 2026).

The digital setting adds further demands. In a scoping review of 63 publications, Estaji et al. (2024) synthesized competencies associated with teachers' assessment literacy in digital environments. Their work

provides a strong rationale for treating digital assessment as a professional capability shaped by knowledge, interpretation and context. It does not imply that a single new platform can produce assessment expertise.

2.3 Feedback literacy and learner participation

Feedback is useful only when learners can interpret and use it. Carless and Boud (2018) foreground students' capacity to appreciate feedback, make judgments, manage responses and act. Nicol and Macfarlane-Dick (2006) likewise connect formative feedback with self-regulated learning. These accounts imply that teacher education should evaluate whether prospective teachers create opportunities for revision, self-assessment and peer discussion, not only whether they deliver comments quickly.

2.4 Digital pedagogy, language-specific validity and ethical limits

The European Commission's DigCompEdu framework distinguishes assessment strategies, analysis of evidence, and feedback and planning (Redecker, 2017). A systematic review by Børte et al. (2023) similarly highlights the need for clear formative-assessment definitions, pedagogical alignment and teachers' data literacy. In language assessment, the CEFR Companion Volume provides descriptive reference points for communicative activities, but teachers must still translate relevant descriptors into task-specific criteria (Council of Europe, 2020).

Platform-generated analytics also have limits. Multiple-choice items are efficient for sampling some forms of recognition but are not substitutes for evaluating discourse organization or pragmatic appropriateness. Teachers must check accessibility, language level, data minimization and the possibility that automated feedback reproduces errors. UNESCO (2023) argues for educational technology choices governed by educational purposes and human interests.

3. METHODOLOGICAL APPROACH

This is a conceptual and methodological synthesis, not an experimental study or a systematic review. The sources were purposively selected to represent foundational formative assessment theory, teacher assessment literacy, feedback literacy, digital teacher competence, language assessment guidance and recent research syntheses. The analysis proceeded through four reasoning steps: identification of recurring constructs; comparison of their implications for EFL teacher preparation; translation of those constructs into trainable activities; and specification of observable performance indicators.

Because no exhaustive database search, formal

screening protocol or primary data collection was conducted, the paper does not report search counts, effect sizes, participant outcomes or empirical effectiveness. Its propositions are intended to be contestable and testable. The framework is offered as a design hypothesis for teacher education rather than as a validated instrument.

4. PROPOSED DIGITAL FORMATIVE ASSESSMENT

Phase	Teacher-candidate action	Evidence of competence
1. Alignment	Specify a language-learning intention and select task-relevant criteria.	A learning objective, criterion map and rationale for platform choice.
2. Elicitation	Design accessible digital tasks that reveal the targeted language performance.	Task prototype, anticipated responses and fairness check.
3. Interpretation	Distinguish response patterns from possible underlying difficulties.	Evidence notes, alternative explanations and diagnostic inference.
4. Responsive action	Offer actionable feedback, reteach selectively and enable revision.	Feedback samples and a justified next-step lesson plan.
5. Reflective recalibration	Examine evidence quality and revise assessment design.	Reflection memo and improved task or rubric.

4.1 Alignment: beginning with a learning claim

Teacher candidates first specify what learners should be able to do and what would count as credible evidence. For a B1-level opinion paragraph, an objective might be to state a position and support it with relevant reasons. A digital writing submission is more suitable than a recognition-only quiz for examining this target. Candidates then develop a concise analytic rubric addressing clarity of position, relevance of support and coherence. CEFR descriptors may inform task design, but the final rubric must be appropriate to the local task and learners.

4.2 Elicitation: designing evidence rather than collecting clicks

The second phase involves constructing tasks that elicit informative responses. Google Forms can support brief diagnostic checks and self-assessment prompts; Moodle can organize writing submissions, rubric-based comments and resubmissions; interactive quiz platforms can provide low-stakes comprehension checks. These are illustrative affordances, not claims that any named service is superior. Candidates should justify tool selection in terms of construct, accessibility, workload and learner privacy.

4.3 Interpretation: moving beyond scores

The third phase requires candidates to annotate response patterns and consider competing explanations. If several learners omit supporting

PEDAGOGY (DFAP) FRAMEWORK

The proposed DFAP framework organizes preparation around five linked phases. It combines existing theoretical commitments in a teaching sequence tailored to pre-service EFL teachers. Its proposed contribution lies in making the transition from digital evidence to justified pedagogical action explicit and assessable.

examples, the teacher should ask whether the task demanded examples clearly, whether learners lack relevant language resources or whether they misunderstood the genre. This disciplined uncertainty is central to assessment literacy: a response pattern is evidence, not a diagnosis in itself.

4.4 Responsive action: feedback that enables a next move

Candidates then prepare feedback that names a relevant strength, identifies a manageable gap and offers an actionable next step. For example: "Your position is clear. Add one specific example after the second reason and explain how it supports your claim." The learner is given time to revise and indicate what changed. A feedback message without an opportunity for uptake should not be treated as a complete formative cycle (Carless & Boud, 2018).

4.5 Reflective recalibration: improving the assessor

Finally, candidates examine the quality of their own judgments. Were criteria understandable? Did the tool capture the intended language skill? Did feedback help learners decide what to revise? Did any learner face access barriers? Reflection closes one cycle and informs the next, making the teacher candidate's assessment practice itself an object of formative development.

5. ILLUSTRATIVE TEACHER-EDUCATION SEQUENCE

A six-session module can embed DFAP in an existing language-teaching methodology course. In Session 1,

candidates critique examples of “digital assessment” and identify which uses are genuinely formative. Session 2 focuses on learning intentions, CEFR-informed descriptors and rubrics. Session 3 is a design studio for digital tasks and accessibility checks. Session 4 uses anonymized or fictional learner responses for diagnostic interpretation. Session 5 is a microteaching simulation with feedback and revision. Session 6 requires an evidence-based reflection and redesign. These are proposed instructional activities, not a report of a delivered intervention.

5.1 Worked EFL writing case

In a simulated B1 writing lesson, candidates ask learners to write 120–150 words recommending a campus sustainability initiative. They assess three features: a clear recommendation, relevant reasons with examples, and logical links between ideas. A

digital submission tool collects texts; a rubric supports annotation. One illustrative learner text presents a clear recommendation but lists reasons without examples. Candidates must identify that distinction, draft targeted feedback and design a brief revision activity.

A weak comment such as “Improve coherence” is compared with a more usable one: “Your recommendation is clear. After the point about saving energy, give one campus example and connect it to the expected benefit.” Candidates then evaluate whether the learner’s revision addresses the intended criterion. The teaching value lies in the evidence-to-action chain, not in the brand of platform used.

5.2 Proposed analytic rubric for candidate performance

Dimension	Emerging (1)	Developing (2)	Proficient (3)	Advanced (4)
Alignment	Unclear objective	Partly matched task	Task and criteria align	Alignment justified and adaptable
Evidence design	Limited diagnostic value	Some useful evidence	Appropriate and accessible	Anticipates bias and alternative responses
Interpretation	Treats scores as explanations	Identifies patterns	Infers plausible needs cautiously	Tests competing explanations
Feedback and action	Vague or grade-only	Specific but limited next step	Actionable feedback plus revision	Feedback uptake monitored and instruction adapted
Reflection	Descriptive only	Notes limitations	Revises design with reasons	Critically evaluates validity and equity

The rubric is a proposed training and research instrument. Before use as a formal outcome measure, it should undergo expert review, pilot scoring, inter-rater agreement checks and examination of construct validity. Summed scores should not be interpreted as interval measurements without further justification.

6. DISCUSSION

DFAP extends existing accounts primarily through pedagogical operationalization. The five phases are consistent with formative assessment theory (Black & Wiliam, 2009), teacher assessment literacy in practice (Xu & Brown, 2016) and DigCompEdu’s emphasis on analyzing evidence and planning feedback (Redecker, 2017). Its distinct design choice is to require an assessable rationale at every transition: why this task, why this inference, why this feedback and why this revision? That rationale may reveal weaknesses hidden by technical fluency.

The framework also addresses a recurring concern in technology-enhanced assessment research: educators can reproduce conventional testing habits on new platforms without changing how evidence supports learning (Børte et al., 2023). A teacher candidate may build an attractive quiz yet remain unable to explain how its outcomes should modify teaching. DFAP therefore treats technological operation as a necessary but insufficient condition.

Several tensions warrant attention. Speed and automation may conflict with nuanced interpretation; frequent data collection may increase workload or surveillance; standard rubrics may support consistency while narrowing the range of valued language performances. Teacher educators should discuss these tensions explicitly and permit non-digital alternatives when they better serve a learning objective. Accessibility and privacy checks must precede classroom deployment, especially where learner

writing or audio is uploaded to external services.

The model should not be described as empirically superior to established training approaches. Its potential contribution is a coherent, teachable synthesis that can be scrutinized and improved. A rigorous future study might compare DFAP-supported coursework with existing assessment instruction, use blind scoring of assessment portfolios and examine the quality of subsequent instructional decisions, rather than relying only on self-reported confidence.

7. LIMITATIONS AND FUTURE VALIDATION

The present article is limited by its conceptual design, purposive literature base and lack of classroom implementation. No participants were recruited, no platform analytics were collected and no learning gains were measured. The worked case and rubric are illustrative artifacts. Accordingly, statements about effectiveness remain hypotheses.

Future validation should begin with expert review of content relevance and usability, followed by a small feasibility pilot. A subsequent mixed-methods study could collect pre/post assessment-design portfolios, recorded microteaching, candidate reflections and interviews. Independent raters could score blinded portfolios with a revised rubric; agreement and score stability should be examined. Learner-facing outcomes could include feedback uptake and quality of revised writing, with appropriate consent and privacy safeguards. Reporting should distinguish feasibility, changes in candidate competence and downstream effects on pupils.

8. CONCLUSION

Digital formative assessment competence in pre-service English teachers is best understood as the capacity to make warranted instructional decisions from learning evidence, not simply to operate assessment software. This article synthesizes formative assessment, assessment literacy, feedback literacy and digital pedagogy into the proposed five-phase DFAP framework: alignment, elicitation, interpretation, responsive action and reflective recalibration. A teacher-education sequence, EFL writing example and provisional analytic rubric show how the framework can be translated into teachable practice. The conceptual contribution is a transparent chain linking digital evidence to pedagogical reasoning and learner opportunities for improvement. Empirical testing is needed before claims of effectiveness can be made.

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REFERENCES

1. Black, P., & Wiliam, D. (2009). Developing the theory of formative assessment. *Educational Assessment, Evaluation and Accountability*, 21, 5–31. <https://doi.org/10.1007/s11092-008-9068-5>
2. Børte, K., Lillejord, S., Chan, J., Wasson, B., & Greiff, S. (2023). Prerequisites for teachers’ technology use in formative assessment practices: A systematic review. *Educational Research Review*, 41, 100568. <https://doi.org/10.1016/j.edurev.2023.100568>
3. Carless, D., & Boud, D. (2018). The development of student feedback literacy: Enabling uptake of feedback. *Assessment & Evaluation in Higher Education*, 43(8), 1315–1325. <https://doi.org/10.1080/02602938.2018.1463354>
4. Council of Europe. (2020). Common European Framework of Reference for Languages: Learning, teaching, assessment—Companion volume. Council of Europe Publishing. <https://www.coe.int/en/web/common-european-framework-reference-languages/cefr-companion-volume-and-its-language-versions>
5. Estaji, M., Banitalebi, Z., & Brown, G. T. L. (2024). The key competencies and components of teacher assessment literacy in digital environments: A scoping review. *Teaching and Teacher Education*, 141, 104497. <https://doi.org/10.1016/j.tate.2024.104497>
6. Kainulainen, J., & Tarnanen, M. (2026). Becoming an assessment-literate teacher in teacher education. *Teaching and Teacher Education*, 171, 105341. <https://doi.org/10.1016/j.tate.2025.105341>
7. Nicol, D. J., & Macfarlane-Dick, D. (2006). Formative assessment and self-regulated learning: A model and seven principles of good feedback practice. *Studies in Higher Education*, 31(2), 199–218. <https://doi.org/10.1080/03075070600572090>
8. Redecker, C. (2017). European framework for the digital competence of educators: DigCompEdu. Publications Office of the European Union. https://publications.jrc.ec.europa.eu/repository/bitstream/JRC107466/pdf_digcomedu_a4_final.pdf

9. Sadler, D. R. (1989). Formative assessment and the design of instructional systems. *Instructional Science*, 18, 119–144.
<https://doi.org/10.1007/BF00117714>
10. UNESCO Global Education Monitoring Report Team. (2023). Global education monitoring report 2023: Technology in education—A tool on whose terms? UNESCO.
<https://doi.org/10.54676/UZQV8501>
11. Xu, Y., & Brown, G. T. L. (2016). Teacher assessment literacy in practice: A reconceptualization. *Teaching and Teacher Education*, 58, 149–162.
<https://doi.org/10.1016/j.tate.2016.05.010>
12. Yan, Z., & Pastore, S. (2022). Are teachers literate in formative assessment? The development and validation of the Teacher Formative Assessment Literacy Scale. *Studies in Educational Evaluation*, 74, 101183.
<https://doi.org/10.1016/j.stueduc.2022.101183>