


Chapter 4

AI–Facilitated Formative Assessment: Reimagining Feedback in the English Language Classroom

Sushant Kishore

 <https://orcid.org/0000-0003-3195-7991>

Vellore Institute of Technology, Vellore, India

ABSTRACT

This chapter examines the transformative role of artificial intelligence in revolutionizing formative assessment practices within English language education. As educators face increasing demands to provide personalized feedback to diverse learners, AI technologies offer promising solutions that can enhance assessment effectiveness while reducing teacher cognitive load. The chapter presents a comprehensive analysis of current AI-powered assessment tools, pedagogical frameworks for their implementation, and evidence-based best practices drawn from various educational contexts. Through a critical examination of both opportunities and challenges, the chapter provides a balanced perspective on how AI can support—rather than replace—human judgment in the assessment process, ultimately creating more responsive and equitable learning environments for English language students worldwide.

INTRODUCTION

The assessment of language learning presents a multifaceted challenge that has evolved over time, demanding a nuanced understanding of both the pedagogical practices involved and the systemic issues at play. In many educational settings, the

DOI: 10.4018/979-8-3373-1952-0.ch004

urgency for timely and individualized feedback is hindered by a disparity between teacher availability and students' needs. For instance, in Kenya, despite the formal emphasis on English in the curriculum, Wamalwa et al. (2014) found that persistent difficulties such as teacher absenteeism and overcrowded classrooms compromise effective instruction and assessment outcomes. Moreover, the cognitive load on teachers can exacerbate these issues, resulting in delayed feedback that ultimately impairs language acquisition. This dilemma mirrors findings in immersive educational environments, where Lehtikko et al. (2024) observed that high interactivity is correlated with increased cognitive load, suggesting that not only individual capabilities but also contextual factors influence learning experiences. Thus, addressing these historical challenges is essential for enhancing language learning assessments and supporting effective communication skills development.

In language learning, assessment serves as a critical vehicle for measuring progress and identifying areas of need, thereby facilitating individualized instruction. The nuances of language acquisition necessitate timely feedback, which not only fosters motivation but also enhances students' understanding and retention of language skills. Historically, the challenge of delivering personalized feedback has been compounded by the cognitive load demands placed on educators, often leading to delayed assessments that can negatively impact language development. Recent advancements in technology, particularly the integration of AI systems, offer promising avenues to address these issues. For instance, Özer (2024) notes that platforms utilizing AI-powered recommendations can tailor learning experiences, thus supporting targeted instruction while alleviating teacher workload. Additionally, Dhananjaya et al. (2024) highlight that the emergence of innovative e-learning technologies provides tools to enhance interaction and feedback mechanisms, contributing to a more effective learning environment. Thus, effective assessment in language learning is not only about evaluation but also about enriching the educational experience for both students and teachers.

The purpose of this essay is to critically examine the challenges inherent in language assessment, particularly focusing on the provision of timely and individualized feedback, the cognitive load burden on teachers, and the detrimental effects of delayed feedback on language acquisition. By exploring these themes, the essay aims to illuminate the historical context surrounding assessment practices and how these have evolved in response to pedagogical needs. It seeks not only to analyze the implications of feedback timing on student performance but also to address the cognitive demands placed on educators, who must balance instructional duties with effective assessment. As educational technology advances and the integration of AI systems in educational contexts becomes more prevalent, the essay will discuss emerging methodologies for enhancing feedback mechanisms while mitigating associated challenges, consistent with discussions in contemporary literature on

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