

AI as Text, Student, And Mirror: Teacher-Centered Approaches to Disciplinary Literacy Instruction in K-12 Classrooms

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Abstract

As generative AI enters K–12 classrooms, educators face a pressing question: How can AI support disciplinary literacy (DL) instruction? This qualitative study examines three structured learning experiences in which credentialed teachers engaged with AI as (1) a disciplinary text generator, (2) a novice learner simulator, and (3) a reflection-informed instructional tool. Drawing on teacher reflections, lesson artifacts, and AI-generated transcripts, thematic analysis was conducted to examine how teachers interpreted, used, and resisted AI in relation to disciplinary literacy practices. Findings indicate that AI-generated texts often reflected surface-level representations of disciplinary thinking, lacking authentic reasoning, cultural responsiveness, and explicit modeling of expert practices. When positioned as a novice learner simulator, however, AI functioned as a diagnostic mirror, exposing gaps in instructional clarity, vocabulary scaffolding, and assumptions about student knowledge. In the final experience, teachers leveraged these insights to reconfigure lessons, increasing attention to modeling disciplinary reasoning, incorporating multiple perspectives, and supporting equitable access to disciplinary practices. Importantly, resistance also emerged. Some teachers expressed ethical concerns, confusion, or discomfort with AI integration. Rather than positioning AI as an instructional replacement, this study contributes a teacher-centered model of critical AI use that foregrounds disciplinary integrity, ethical deliberation, and iterative reflection. Implications inform professional learning designs that support thoughtful, justice-oriented AI integration in literacy instruction.

Keywords: Disciplinary Literacy; Teacher-Centered Instruction; Critical AI Use