

Mapping the Knowledge Landscape of Quality Assurance for AI-Driven Innovative Teaching for K–12: A bibliometric and Cluster Analysis

Abstract

This study aims to employ VOSviewer bibliometric coupling analysis to identify research clusters and exclude those with low relevance to the study's core theme. By utilizing indicators such as representative literature, link strength, and citation counts, key literature was filtered and systematically mapped into eight core dimensions: teacher training, institutional governance and support, curriculum design, contextual application, educational equity, effectiveness, assessment, and ethics. Integrating these facets with the PDCA (Plan-Do-Check-Act) management cycle, this study constructs a consensus-based AI-driven teaching innovation quality assurance framework. This framework provides educational institutions with a sustainable cycle for AI-driven innovative teaching, alongside concrete, actionable decision-making and practical guidelines for quality assurance.

Keyword Artificial Intelligence in Education(AIEd), teaching Innovation, Quality assurance, Bibliometric Analysis, PDCA Cycle