

AI Literacy as a Socio-Cognitive Facilitator of Agentic Leadership in Managing Intergenerational Conflict in Universities

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Purpose: This study aimed to develop an empirically grounded model explaining how artificial intelligence (AI) literacy functions as a facilitating capacity among agentic educational leaders in identifying and resolving intergenerational conflicts within university settings. While prior research has emphasized AI literacy mainly as a technical or innovation-related competence in higher education leadership, its role as a socio-cognitive and interpretive capacity shaping leaders' approaches to human and intergenerational interactions remains underexplored. Addressing this gap, the study examines how AI literacy intersects with distributed leadership agency to support conflict diagnosis, sense-making, and resolution in academic environments.

Methods: An exploratory mixed-methods design with a qualitative-dominant explanatory orientation was employed. In the quantitative phase, the Distributed Leadership Agency Questionnaire (Johnson et al., 2016) and the AI Literacy Scale (Gümüş & Kara, 2025) were administered to all educational leaders at the studied university (N = 9). participants including the university president, faculty deans, educational deputies, department heads, and educational supervisors. In the qualitative phase, semi-structured interviews were conducted to elaborate and deepen the quantitative insights. Data were analyzed using grounded theory, resulting in the extraction of 125 initial codes which, after removing redundancies and integrating overlapping concepts, were reduced to 85 refined codes organized into five major categories: (a) Contextual conditions (educational, skill-based, behavioral, and cognitive dimensions), (b) Causal conditions (experiential, generational, socio-cultural, gender-related, pace of societal change, and locality differences), (c) Intervening conditions (family influences, virtual environments, and communication patterns), (d) Strategies (educational, interactive, informational, skill-oriented, cultural, and managerial actions), and (e) Consequences.

Findings: The central explanatory concept emerging from the analysis was that AI-literate educational leaders mobilize data-informed and interaction-oriented agency to bridge generational gaps. Leaders with higher AI literacy demonstrated enhanced capacity to diagnose intergenerational tensions, interpret behavioral and cultural differences through evidence-informed reasoning, and design adaptive educational, communicative, and managerial strategies for constructive conflict resolution. AI literacy expanded leaders' anticipatory judgment, strengthened reflective decision-making, and supported more nuanced engagement with generational diversity.

Conclusion & Contribution: The study contributes to educational leadership theory by conceptualizing AI literacy as a socio-cognitive facilitator of agentic and relational leadership, rather than merely a technical skill. Practically, the proposed model offers guidance for universities seeking to design leadership development programs, integrate AI-supported reflective tools, and foster inclusive and future-oriented academic environments capable of navigating intergenerational challenges.

Keywords: AI Literacy, Agentic Educational Leadership, Intergenerational Conflict, Distributed Leadership Agency, Higher Education.