



Factors Shaping Teacher AI Use

Summary of Filiz et al., (2025)

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This exploratory study analyzes reflections from 66 Turkish K–12 teachers who participated in AI-integration professional development. Teachers expressed optimism about AI’s ability to personalize instruction, reduce planning time, enhance engagement, and support feedback. Many appreciated tools like ChatGPT and MagicSchool for generating questions, summaries, and differentiated materials.

However, teachers also faced significant challenges: unreliable infrastructure, difficulty aligning AI tasks with curriculum standards, language limitations, concerns about bias and data privacy, and uncertainty about ethical boundaries for student use. These barriers were categorized into psychological, pedagogical, technical, and cultural domains.

The authors argue that successful AI adoption requires much more than tool availability; it demands structured training, policies, locally relevant content, and ongoing support. AI must be adapted to the school’s language, values, and cultural context to ensure safe and meaningful classroom integration.

Implications for Practice

1. Provide continuous, contextualized teacher training in AI pedagogy.
2. Align AI-generated resources with curriculum outcomes.
3. Strengthen infrastructure and language-localization support.
4. Establish ethical guidelines for classroom AI use.

Table 2.23.6

| Item | Details |
|--------------|------------------------------|
| Context | Türkiye |
| Design | Qualitative |
| Participants | 66 teachers |
| Focus | AI in K–12 |
| Contribution | Adoption barriers & enablers |

Reference

Filiz, O., Kaya, M. H., & Adiguzel, T. (2025). Teachers and AI: Understanding the factors influencing AI integration in K-12 education. *Education and Information Technologies*, 30, 17931–17967.

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