



Interactive Learning and Critical Thinking

Summary of Song and Cai (2024)

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Academic Insights

This study tested whether a mobile brain-training application used during class could improve critical thinking in first-year university students. After one month of guided use, the results showed a significant improvement in critical thinking scores. The authors argue that carefully designed interactive learning environments can support reflection, engagement, and mental effort even when screen time is limited. Rather than replacing teaching, the tool worked as a structured stimulus for students to practice analysis and reasoning in an active way. The key lesson is that digital interactive environments can strengthen critical thinking when they are purposefully integrated into formal learning and not used as passive entertainment.

Apply This Now

Use digital tools in class as short, structured thinking exercises tied to learning goals.

Add This in Your Lesson

Include timed app-based or game-based tasks that require analysis, reflection, and follow-up discussion.

Avoid This Mistake

Do not use educational technology as filler; its value depends on guided cognitive engagement.

Keywords

interactive learning, mobile learning, critical thinking, gamification, student engagement

Reference

Song, H., & Cai, L. (2024). Interactive learning environment as a source of critical thinking skills for college students. *BMC Medical Education*, 24, 270. <https://doi.org/10.1186/s12909-024-05247-y>

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