

Abstrak. Perkembangan kecerdasan buatan (AI) yang pesat menuntut kemampuan berpikir kritis agar siswa mampu berinteraksi secara reflektif dengan teknologi. Namun, kesiapan siswa sebagai pengguna AI masih perlu perhatian serius. Hasil penelitian menunjukkan bahwa kemampuan berpikir kritis siswa Indonesia masih rendah. Kondisi ini membuat siswa rentan terhadap arus informasi tanpa kemampuan reflektif yang memadai. Penelitian ini menguji pengaruh literasi AI terhadap disposisi berpikir kritis dengan *metacognitive self-regulation* sebagai mediator pada 219 siswa SMP di Daerah Istimewa Yogyakarta. Instrumen yang digunakan meliputi *Artificial Intelligence–Concept Inventory*, *Metacognitive Self-Regulation Scale–Revised*, dan *Critical Thinking Disposition Scale*. Analisis menggunakan Jamovi dan R menunjukkan bahwa literasi AI berpengaruh terhadap disposisi berpikir kritis secara tidak langsung melalui *metacognitive self-regulation* ($\beta = 0,0898$; $p < 0,05$). Temuan ini menegaskan peran *metacognitive self-regulation* sebagai mekanisme kognitif penting dalam penguatan disposisi berpikir kritis di era digital.

Kata Kunci: Disposisi Berpikir Kritis, Literasi Artificial Intelligence, Metacognitive Self-Regulation, Siswa SMP

Abstract. The rapid development of artificial intelligence (AI) demands critical thinking skills so that students can interact with technology in a reflective manner. However, students' readiness as AI users still requires serious attention. Research has shown that Indonesian students' critical thinking ability remains low. This condition makes them vulnerable to the flow of information without adequate reflective capacity. This study examined the effect of AI literacy on critical thinking disposition, with metacognitive self-regulation as a mediating variable, among 219 junior high school students in the Special Region of Yogyakarta. The instruments used were the *Artificial Intelligence–Concept Inventory*, *Metacognitive Self-Regulation Scale–Revised*, and *Critical Thinking Disposition Scale*. Analyses using Jamovi and R revealed that AI literacy indirectly influenced critical thinking disposition through metacognitive self-regulation ($\beta = 0.0898$; $p < 0.05$). No significant differences were found between genders. Grade IX students demonstrated higher AI literacy than Grades VII and VIII, while 12-year-old students achieved higher scores than other age groups. These findings highlight metacognitive self-regulation as a key cognitive mechanism in strengthening critical thinking disposition in the digital era.

Keywords: *Critical Thinking Disposition, Artificial Intelligence Literacy, Metacognitive Self-Regulation, Students*