

Between Competence and Dependency: AI Writing Tools, Dumbcrafting, and the Psychological Cost of Detection Anxiety Among Indonesian Undergraduate Students

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Abstract

The swift uptake of generative AI writing programs by higher education has led to a structural paradox – students who attain Critical Academic Competence (CAC) will likely receive psychological punishment from AI detectors that do not have the capability to detect the difference between human-made academic texts and machine-generated text. The study explores the interconnection among the following three constructs: CAC, AID, and PSY. It examines the relationships between CAC, AID, and PSY among undergraduate students at Universitas Pendidikan Indonesia (UPI) in Indonesia studying English as a foreign language (EFL). The study used a mixed-methods cross-sectional survey design involving 43 undergraduate students (female = 81.4%; age range = 19–24). The survey consisted of 19 closed-ended items rated on a five-point Likert scale. The study evaluated three main variables: CAC (3 items; $\alpha = .525$), AID (10 items; $\alpha = .530$), and PSY (6 items; $\alpha = .624$). The qualitative section involved five open-ended questions. Thematic analysis and Pearson correlation were used. About 67.4% of the participants felt anxious when notified about their scores by AI detectors, while 48.8% engaged in dumbcrafting practices, which refer to deliberately reducing the quality of their work to avoid detection. The correlation results showed that there was a significant positive association between AID and PSY ($r = .357$, $p = .019$) as well as a significant positive relationship between CAC and PSY ($r = .338$, $p = .027$). There was no significant correlation between CAC and AID ($r = .231$, $p = .136$). The results obtained during the qualitative phase of this research identified four thematic ways of coping with AI detection: reformulation, vocabulary simplification, casualization of structure, and error tolerance.

Keywords: AI detection anxiety; dumbcrafting; EFL academic writing; AI writing dependency; digital academic integrity