

AI Literacy and Gender Equity — A Quasi-Experimental STEAM-PBL-AIoT Course for Taiwanese Fifth-Graders

AI in Education · Good practice · Taiwan

Quality score: 60/100

Evidence strength: Quasi-experimental

Summary

A quasi-experimental study (n=109, grade 5) in Tainan found girls entered an AI course scoring lower on AI literacy than boys, but a STEAM-PBL-AIoT literacy curriculum closed the gap by post-test, with girls in that group outperforming boys in the comparison course.

Key dimensions

Dimension	Score
Evidence of learning impact	3/3
Equity & inclusion	3/3
Transparency, ethics & data protection	1/3
Teacher capability & pedagogy	1/3
Scalability & sustainability	1/3

Evaluated by C-NAPSE

Data sources

[C-NAPSE web research](#) — accessed 2026-08-09

[National Cheng Kung University; University of Georgia](#) — accessed 2026-08-09

[International Journal of STEM Education \(Springer Open, full text\)](#) — accessed 2026-08-09

[DOAJ indexed record \(independent verification\)](#) — accessed 2026-08-09

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