CONSORT 2010 Applicability Checklist

Manuscript: When Evaluation Clarity Creates Algorithmic Anxiety: A Randomized Field Experiment of Explainable Fuzzy Assessment and Teacher Feedback Uptake

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Scope note. The editor requested a CONSORT 2010 checklist. The manuscript is a randomized educational field experiment and, based on the WHO definition used by Scientific Reports, does not evaluate a health-related intervention or health outcome. This checklist is therefore provided as an applicability/reporting-transparency cross-check. Where the supplied study record does not support a detail, the entry is marked transparently rather than completed by inference.

Item	Reporting topic	Page(s)	Status / location
1a	Title identifies randomized design	1	Reported: title now states "A Randomized Field Experiment."
1b	Abstract summarizes design, groups, participants, outcomes, results	1	Reported in the journal-format abstract (unstructured).
2a	Scientific background and rationale	1-3	Reported.
2b	Specific objectives / hypotheses	4-7	Reported as H1-H8 and guiding research question.
3a	Trial/experiment design and allocation ratio	7-9	Three-arm randomized field experiment; randomized counts 328/327/327 (approximately 1:1:1).
3b	Important method changes after commencement	-	Not verifiable from supplied study records; no unsupported statement added.
4a	Participant eligibility criteria	9	Population and screening flow reported; explicit eligibility criteria are not present in the supplied study record.
4b	Settings and locations of data collection	9	Reported: 12 universities in mainland China, first semester 2025-2026.
5	Interventions for each group	9-10	Reported for traditional, black-box AI, and explainable fuzzy AI feedback.
6a	Defined outcomes and assessment timing	7-10	Reported across T1, T2, and T3; measures described in Section 4.4.
6b	Changes to outcomes after commencement	-	Not verifiable from supplied study records; no unsupported statement added.
7a	How sample size was determined	-	No verified a priori sample-size calculation is present in the supplied study record.
7b	Interim analyses / stopping rules	-	Not reported; no clinical stopping framework is asserted for this non-health educational experiment.
8a	Random-sequence generation method	7, 9	Random assignment is reported; the sequence-generation algorithm is not stated in the supplied study record.
8b	Randomization type and restrictions	9	Three randomized conditions and group sizes are reported; restriction/blocking details are not stated.
9	Allocation-concealment mechanism	-	Not reported in the supplied study record.
10	Who generated sequence / enrolled / assigned	-	Not reported in the supplied study record.
11a	Blinding after assignment	9-10	Feedback reports were visibly different by condition; no additional verified blinding procedure is asserted.
11b	Similarity of interventions, if relevant	9-10	Condition differences are explicitly described in Section 4.3 and Table 3.
12a	Statistical methods for group comparisons/outcomes	11-14	Reported in Sections 4.6-4.8.
12b	Methods for additional analyses	11-14, 18	Moderation, robustness, missing-data sensitivity, and alternative-model checks reported.
13a	Numbers randomized, retained, and analyzed	15	Reported in Table 5 participant-flow/attrition summary.
13b	Losses/exclusions after randomization with reasons	15	Overall retention is reported; group-specific reasons are not available in the supplied study record.
14a	Recruitment and follow-up periods	7-9	First semester 2025-2026; T2 one week after feedback; T3 end of semester.
14b	Why the study ended/stopped	-	Not reported; no unsupported stopping statement added.
15	Baseline demographic/other characteristics by group	16	Reported in Table 6.
16	Numbers included in analyses / assigned groups	15-18	Reported in participant flow and results tables; primary treatment contrasts preserve randomized-condition labels.
17a	Outcome estimates and precision	17-18	Reported in Tables 8-11 with SEs, CIs, and p values where applicable.
17b	Absolute and relative effects for binary outcomes	N/A	Outcomes are continuous; item not applicable.
18	Ancillary / subgroup / adjusted analyses	17-18	Moderation and robustness/sensitivity analyses reported.

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19	Harms / unintended effects	17	Evaluation anxiety is reported as a study outcome; no biomedical or clinical adverse-event outcome was evaluated.
20	Limitations	19	Expanded to address mediation assumptions, attrition, follow-up duration, clustering, generalizability, and bundled treatment components.
21	Generalisability	19-20	Bounded to the multi-site Chinese higher-education context; cross-institutional and longer-term generalization is not claimed.
22	Interpretation consistent with results and limitations	19-20	Conclusion revised to avoid definitive mechanism and persistence/generalizability claims.
23	Trial registration	8, 21	Not applicable under WHO clinical-trial definition: intervention and outcomes are educational/non-health. Reclassification requested.
24	Protocol access	Supplement	Survey, intervention, codebook, fuzzy protocol, audit structure, and restricted reproducibility materials are documented in Supplementary Information; no clinical-trial protocol is asserted.
25	Funding	21	No external funding declared.

Data Availability system action: select **Yes** at resubmission and paste the manuscript Data Availability statement exactly. **Clinical-trial field:** request reclassification rather than entering an unverified registry identifier.