

Table 2. *Key decision points and common pitfalls for student projects.*

Stage	Minimum deliverable	Common pitfall to avoid
Item content	Truth-value check with justification for the correct answer (evidence/source) and a brief item rationale.	Literal translation that changes the factual claim or makes it time- or culture-bound.
Translation team	Named review group with content and measurement expertise; documented decisions (who reviewed, when, outcomes); Developer feedback log (queries-responses-decisions)	Over-reliance on bilingual translators without construct/ measurement expertise; no developer consultation -ambiguous items unsolved.
Pre-testing	Cognitive debriefing report (sample, interview guide, top issues, revisions made + rationale).	No interview guide / no record of changes → pre-test becomes “proofreading” and cannot justify revisions.
Equivalence	Analysis plan + results for measurement invariance (MG-CFA) and/or DIF/IRT with decision rules; or explicit limitation if not feasible.	Reporting between-group comparisons without an equivalence plan (MG-CFA/DIF) or an explicit limitation statement.
Familiarity bias	If reuse is unavoidable: spacing/alternate forms + measure perceived familiarity; run a sensitivity check.	Inflated scores due to prior exposure rather than learning gains.

Note: Table 2 translates the comparative synthesis in Table 1 into minimum deliverables and common pitfalls for student projects.

Abbreviations: MG-CFA, multi-group confirmatory factor analysis; CFA, confirmatory factor analysis; DIF, differential item functioning; IRT, item response theory; TCA, translation and cultural adaptation.