

Quality Indicator Checklist: Group Experimental Studies

Design type: _____ (e.g., true, quasi, between, within, mixed)

Essential Quality Indicators

Participants

- (1) Sufficient information to determine/confirm whether the participant demonstrated the disabilities or difficulties addressed is presented.
- (2) Appropriate procedures were used to increase the probability that participants were comparable across conditions.
- (3) Sufficient information describing important characteristics of the intervention providers was included.

Independent Variable/ Intervention

- (4) The intervention was clearly described and specified.
- (5) Fidelity of implementation was described. (optional)
- (6) The nature of services provided in comparison conditions was described.

Dependent Variables/ Measures/

- (7) Multiple measures were used to provide an appropriate balance between measures closely aligned with the intervention and measures of generalized performance. (optional)
- (8) Outcomes for capturing the intervention's effect are measured at the appropriate times.

Results

- (9) The data analysis techniques chosen were appropriate and linked to key research questions and hypotheses and the researcher clearly linked the unit of analysis chosen to the key statistical analyses.
- (10) Effect size calculations were reported or data are provided to enable an effect size calculation for the primary dependent variable (means and standard deviation of intervention and control/comparison group).

AND

Desirable Quality Indicators

Participants

- (11) Attrition rates documented and 30% or below. If severe, comparable across samples?

Dependent Variable/ Measures

- (12) Evidence of test-retest reliability, internal consistency reliability, and interrater reliability (when appropriate) for the outcome measures were provided
- (13) Adequate inter-scoring agreement is documented.
- (14) Data collectors and/or scorers are blind to study conditions and equally unfamiliar to examinees across study conditions.
- (15) Outcomes were measured beyond an immediate posttest.

- (16) Criterion & construct validity of the measures were provided.

Independent Variable/ Intervention:

- (17) Fidelity of implementation was described and assessed in terms of surface (the expected intervention was implemented) and quality (how well the intervention was implemented) features.
- (18) The nature of services provided in comparison conditions were described and documented.

Results

- (19) Actual audio or videotape excerpts were included to capture the nature of the intervention.
- (20) Results were presented in a clear, coherent, fashion.

Decision Rules for Presence of Group Study Quality Indicators

1. The disability was defined (e.g., “math disability = performing below the 16th percentile...”), not simply named and documentation was provided that study participants met the criteria for the disability. Enough information provided so that readers can identify population to which results may generalize (e.g., disability status, age, race, gender, socioeconomic status, scores related to academic assessments, socioeconomic context of intervention school).
2. Thorough description of how participants assigned to treatment, comparison, and control group including random assignment of students (when possible), random assignment of teachers or classrooms, or matched pairs or stratified random assignments. At least a thorough description of all groups and measures of comparability between groups regarding key performance and demographic variables.
3. Enough information provided about the interventionist(s) so that the reader understands the type of skills required for administering the intervention (e.g., age, gender, race, educational background, prior experience, measures of prior knowledge, attitudinal measures).
4. Intervention described clearly enough to encourage systematic replication, as well as coding of the intervention for meta-analytic research. Clear descriptions include more than broad terms (e.g., direct instruction) to various aspects including concepts behind the intervention, detailed instructional procedures, teacher actions (e.g., modeling), descriptions of materials, student behaviors (e.g., definition of required student responses). The independent variable was operationally defined.
5. Treatment fidelity measured and results of the measures may be reported.
6. Interventions occurring with comparison groups described (e.g., texts used, related professional development for staff).
7. Study used multiple measures to assess both (a) the immediate and direct effects of the intervention and (b) generalized performance. Appropriate accommodations and selection of appropriate for the study population may also be considered.
8. Data were collected at appropriate times based on the questions researchers were asking. This may be only pre and posttest, but might also include measures several weeks after intervention or at another critical point during intervention.
9. Data analysis techniques were explained (or a rationale provided), not just a list of all possible analyses run. The researchers also reported or indicated the unit of analysis (e.g., the student, the

class, dyads of students). n = the number of ____ (units of analysis) in the study and the scores of each unit contribute to the results. It is possible to have more than one unit of analysis for different measures in one study, in order to answer the research questions asked.

10. Effect sizes were calculated or data provide to enable effect size calculation for primary dependent variable (means and standard deviation for both intervention and control/comparison group).
11. Attrition rates from all groups were calculated and documented and comparable across conditions in the study.
12. Internal consistency reliability (e.g., Cronbach's alpha, coefficient alpha) of at least .6.
13. & 14. Ideally, data collectors are blind to the purpose of the research and participants are unfamiliar with the data collectors; however, in all cases, data collectors should be trained in data collection and interrater reliability data collected and reported above .90.
15. Measures of effects were conducted and reported beyond an immediate posttest to capture information on any adverse, unintended, or additional positive effects of an intervention.
16. Concurrent validity (scores on test related to scores on another test; correlation of scores), predictive validity (degree to which test can predict future performance [e.g., SAT], and construct validity (degree to which test measures an intended construct) were measured and reported, or referenced regarding more established measures.
17. Surface fidelity measures include repeated observations of (a) key features of the intervention, (b) adequate time allocated for the intervention, and (c) coverage of adequate amount of material. Quality fidelity indicates that the intervention was delivered with high quality (e.g., good examples, use of clear language when modeling a skill, corrective feedback provided consistently).
18. Descriptions of the nature of instruction (e.g., time allocated, grouping) for the comparison group were provided.
19. Excerpts from video or audiotape (e.g., treatment fidelity measures, measures of student performance) were included to capture the nature of the intervention.
20. Results were clear and coherent for the reader.