

**CDE Sliver Grant
Study Design and Implementation Device (Short Form)**

Reviewer (circle one):

Cooney

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Other: _____

Date: _____

Citation:

Composite Question 1. Intervention’s Relevance to the Review: Was the intervention properly defined?

- | | |
|--|---------------------------------------|
| a. Yes, the intervention was adequately described, and it fully reflected ideas about what the intervention should be. | Yes
<input type="checkbox"/> |
| b. Maybe Yes, the intervention was adequately described, and it at least largely reflected ideas about what the intervention should be. | Maybe Yes
<input type="checkbox"/> |
| c. Maybe No, there were important details missing from the description of the intervention and/or possible problems with its implementation. | Maybe No
<input type="checkbox"/> |
| d. No, the intervention did not reflect ideas about what it should be and/or there were known problems with its implementation. | No
<input type="checkbox"/> |

Composite Question 2. Outcome Measure’s Relevance to the Review: Was the outcome measure properly defined and aligned to the intervention?

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|---|--------------------------------------|
| a. Yes, the report presented evidence that the outcome measure was properly defined and aligned to the intervention. | Yes
<input type="checkbox"/> |
| b. [There is no “ <u>Maybe Yes</u> ” answer for this question.] | |
| c. Maybe no, there was evidence that the measure had face validity and was properly aligned to the intervention. However, evidence suggested the measure might not be reliable. | Maybe No
<input type="checkbox"/> |
| d. No, it is unclear what the outcome was. | No
<input type="checkbox"/> |

Composite Question 3a. Clarity of Causal Inference: Fair Comparison (for Randomized Designs): Were the participants (e.g. students, schools) in the group receiving the intervention comparable to the participants in the comparison group?

- a. Yes, participants were randomly assigned to conditions and few participants dropped out during the study. Yes
- b. Maybe Yes, random assignment was used but there was severe dropping out by participants. Maybe Yes
- c. Maybe No, random assignment was used but there was differential dropping out of participants across conditions. Maybe No
- d. No, although random assignment was used, participants dropping out during the study probably led to the groups not being comparable. No

Composite Question 3b. Clarity of Causal Inference: Fair Comparison (for Quasi-Experimental Designs): Were the participants (e.g. students, schools) in the group receiving the intervention comparable to the participants in the comparison group?

- a. [There is no “Yes” answer for these types of designs.]
- b. Maybe Yes, reasonable steps were taken to make the groups comparable. Maybe Yes
- c. Maybe No, although steps were taken to make the groups comparable, the steps may not have been adequate. Maybe No
- d. No, it is unlikely that the participants in the groups were comparable. No

Composite Question 3c. Clarity of Causal Inference: Fair Comparison (for Regression Discontinuity Designs): Were the participants (e.g. students, schools) in the group receiving the intervention comparable to the participants in the comparison group?

- a. Yes, an assignment variable with specified cutoffs was used to place participants into groups and there was no attrition problem. Yes
- b. Maybe Yes, an assignment variable with specified cutoffs was used to place participants into groups but severe attrition may have affected study results. Maybe Yes
- c. Maybe No, an assignment variable with specified cutoffs was used to place participants into groups, but differential attrition may have affected study results. Maybe No
- d. No, an assignment variable with specified cutoffs was not used to place participants into groups. No

Composite Question 3d. Clarity of Causal Inference: Fair Comparison (for Single-Factor Within-Subject Designs where two or more interventions are administered to a single sample of participants): Were the participants assigned to treatments in such a way that the effects of the intervention could be interpreted unambiguously?

- a. Yes, participants were randomly assigned to one the possible counterbalanced orders of treatment combinations to control *practice effects*; there was no potential for *differential carry-over effects*; and few participants dropped out during the study. Yes
- b. Maybe yes, practice effects and differential carry-over effects were controlled, but there was severe attrition during the study. Maybe Yes
- c. Maybe no, practice effects were controlled, but there was potential for differential carry-over effects. Maybe No
- d. No, neither practice effects of differential carry-over effects were controlled. No

Composite Question 3e. Clarity of Causal Inference: Fair Comparison (for Single Subject Designs, with baselines and one or more interventions, administered to the same sample of participants): Did the participants receive treatments in such a way that the effects of the intervention could be interpreted unambiguously?

- a. Yes. A rigorous design was used, all participants experienced all baseline/treatment combinations; there were sufficient data points for all conditions to draw conclusions. Yes
- b. Maybe yes. A rigorous design was used and all participants experienced all essential baseline/treatment combinations. However, one or more of the following was present: some additional (or different) interventions were carried out with some but not all of the subjects; some of the data sets for certain conditions were small (less than 5) Maybe Yes
- c. Maybe no. Although an acceptable design was used, one or more of the following was present: the design poorly controlled for multiple intervention interference; not all participants experienced all essential baseline/treatment combinations; some of the data sets for certain conditions appeared insufficient (less than two) Maybe No
- d. No. There were serious flaws in either the design or the execution of the study, which resulted in the presence of multiple competing hypotheses, either acknowledged or suspected. No

Composite Question 4. Clarity of Causal Inference: Was the study free of events that happened at the same time as the intervention that confused its effect?

- a. Yes, other events that might be alternative explanations to the intervention's effect have been ruled out. Yes
- b. Maybe Yes, there were no other identified events that could be alternative explanations, but some alternative explanations remain plausible. Maybe Yes
- c. [There is no "Maybe No" answer for this question.]
- d. No, other events happening at the same time as the intervention may have caused the effect. No

Composite Question 5. Generality of Findings: Inclusive Sampling: Were targeted participants, settings, outcomes, and occasions included in the study?

- a. Yes, the targets are represented in the sample. Yes
- b. Maybe Yes, most important characteristics of the targets are represented in the sample. Maybe Yes
- c. Maybe No, although some important characteristics of targets are represented in the sample, many important targets are not. Maybe No
- d. No, the sampled participants were not part of the target populations. No

Composite Question 6. Generality of Findings: Effects Tested Within Sub-Groups: Was the intervention tested for its effectiveness within important subgroups of target participants, settings, outcomes, occasions, and intervention variations?

- a. Yes, the intervention was tested for its effectiveness on targeted variations. Yes
- b. Maybe Yes, the intervention was tested for its effectiveness within most important subgroups of the participants and settings. Maybe Yes
- c. Maybe No, although the intervention was tested for its effectiveness within some important subgroups of the participants and settings, many were left out. Maybe No
- d. No, at best the intervention was only tested for its effectiveness within limited important subgroups of the participants, settings, outcomes, occasions, and intervention variations. No

Composite Question 7. Precision of Outcome: Effect Size Estimation: Were the effect sizes accurately estimated?

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|---|---------------------------------------|
| a. Yes, the effect sizes appear to be accurately estimated. | Yes
<input type="checkbox"/> |
| b. Maybe Yes, there was some evidence of statistical issues that may have caused the effect size to be inaccurately estimated, but the likely impact on inferences was minimal. | Maybe Yes
<input type="checkbox"/> |
| c. Maybe No, there was evidence that statistical issues may have caused the effect sizes to be inaccurately estimated. | Maybe No
<input type="checkbox"/> |
| d. No, the assumption of statistical independence was not met, and dependence was not accounted for in the effect sizes. | No
<input type="checkbox"/> |

Composite Question 8a. Precision of Outcome: Statistical Reporting: Were the statistical tests adequately reported?

- | | |
|---|---------------------------------------|
| a. Yes, the statistical tests were adequately reported. | Yes
<input type="checkbox"/> |
| b. Maybe Yes, sufficient statistical information was reported to allow, at a minimum, imprecise effect sizes to be calculated for most measured outcomes. | Maybe Yes
<input type="checkbox"/> |
| c. Maybe No, effect sizes could not be calculated for most outcome measures. | Maybe No
<input type="checkbox"/> |
| d. No, sample sizes were not reported, OR neither the magnitude nor the direction of the effects could be discerned for most outcome measures. | No
<input type="checkbox"/> |

Composite Question 8b. Precision of Outcome: Statistical Description and Graphic Representation for Single Subject Designs: Were descriptions of the quantitative results and/or graphic representations adequately reported?

- | | |
|--|---------------------------------------|
| a. Yes, clear quantitative information was presented either graphically and/or through descriptive statistics to support all major conclusions. | Yes
<input type="checkbox"/> |
| b. Maybe Yes, sufficient quantitative information was reported to allow, at a minimum, imprecise effect sizes to be calculated for most measured outcomes. | Maybe Yes
<input type="checkbox"/> |
| c. Maybe No, effect sizes could not be calculated for most outcome measures. | Maybe No
<input type="checkbox"/> |
| d. No, neither the magnitude nor the direction of the effects could be discerned for most outcome measures. | No
<input type="checkbox"/> |