



Instruction Manual

*Registering Evaluations with Group Designs in the
SREE Registry for Efficacy and Effectiveness*



September 2020

Prepared by:

Anne Wolf,^a Barbara Goodson,^a Beth Boulay,^a Jessaca Spybrook^b, Cristofer Price,^a and Rachel McCormick^a

^aAbt Associates

^bWestern Michigan University

This guidance was developed under U.S. Department of Education Institute of Education Sciences (IES) contract ED-IES-15-A-0005 with Abt Associates. This contract provided evaluation technical assistance for evaluators of interventions funded by the Education, Innovation and Research (EIR) program. Tools, webinars, and other materials were developed to help grantees engage in good scientific practice and produce evaluations that meet *What Works Clearinghouse*TM evidence standards.

EIR Evaluation Technical Assistance

Contents

Introduction	3
Getting Started in REES	3
Logging in to REES	4
Setting up the Entry	5
Navigating in REES.....	5
Section I: General Study Information.....	8
Section II: Description of Study	10
Section III: Research Questions.....	12
Section IV-A: Study Design (Selection).....	13
Section IV-B: Study Design (Input)	14
Details about Randomized Trials and Quasi-experimental Designs	14
Section V: Sample Characteristics.....	19
Section VI: Outcomes.....	23
Section VIII: Analysis Plan	25
Section VIII: Additional Materials.....	28

Introduction

The ***Registry of Efficacy and Effectiveness Studies (REES)*** is designed to increase transparency and provide easy access to information about ongoing and completed impact studies (<https://sreereg.icpsr.umich.edu/sreereg/>). The registry, which is supported by the Institute of Education Sciences at the U.S. Department of Education, describes evaluation plans for rigorous evaluation designs and offers evaluators the opportunity to pre-specify their designs before collecting outcome data and conducting impact analyses. Pre-specifying confirmatory analyses before collecting outcome data is considered best practice and evidence of the scientific integrity of the evaluation.

This document provides step-by-step instructions for entering group design evaluations into REES. Four types of research designs can all be registered in REES – randomized trials (RTs), quasi-experimental designs (QEDs) with comparison group, regression discontinuity designs (RDDs), and single case designs (SCDs). However, this instruction guide focuses specifically on randomized trials (RTs) and quasi-experimental designs (QEDs) with comparison group.

The instructions follow the sequence of each section in REES. The steps covered in this document are:

- Logging into REES
- Setting up the Entry (i.e., how to distinguish sub-studies)
- Section I: General Study Information (e.g., study title, abstract, dates, IRB)
- Section II: Description of the Study (e.g., intervention and comparison conditions)
- Section III: Research Questions
- Section IV-A: Study Design (Selection)
- Section IV-B: Study Design (Input)
- Section V: Sample Characteristics
- Section VI: Outcomes
- Section VII: Analysis Plan
- Section VIII: Additional Materials (i.e., attachments)
- Special Instructions for EIR Evaluators

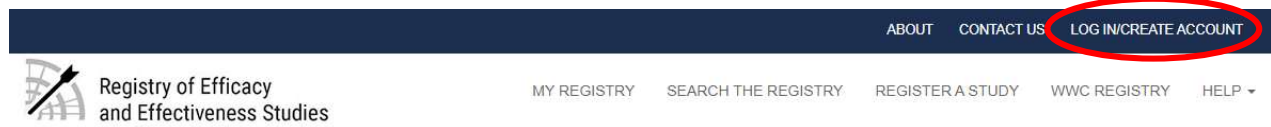
Getting Started in REES

See the following video, which quickly explains how to create a pre-registration in REES, including information you will need to have at hand, navigating the site, and where to find help.

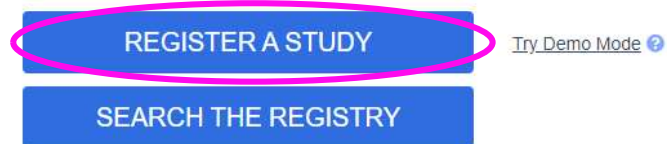
<https://www.youtube.com/watch?v=OXODz7QZYmE&feature=youtu.be>

Logging in to REES

On the REES home page (<https://sreereg.icpsr.umich.edu/sreereg/>), you can begin by logging in to an existing account or creating a new account. You can do so by clicking the link that says “LOG IN / CREATE ACCOUNT” (shown circled in **red**).



Or you can click the link that says, “Register a study” (shown circled in **pink**).



When you click either link, you will be prompted to either log in or create a new account.

Log into ICPSR

Use MyData

Email:

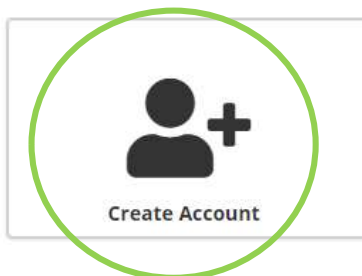
Password:

[Request a new password](#)

You must set your browser to accept cookies in order for login to succeed. Your login session will last for nine hours (or until you log out).

If you already have an account, you can login by entering your email address and password, and then clicking the “log in” (shown in **green**).

New User?



If you do not have an account, you can click the “Create Account” button (shown circled in **green**). You will be prompted to enter your email address, create a password, and provide your name and organizational affiliation.

Once you are logged in, you will be able to enter details about your evaluation.

Setting up the Entry

The first page of the registry provides instructions and allows you to begin to set-up the entry.

By default, all entries in REES are currently marked as education research, but other social science domains will be added in the future.

Designating Sub-Studies

A sub-entry distinguishes studies or analyses within the evaluation that:

1. Use different designs (a RCT, a QED, or a C-SITS), or
2. Measure outcomes at different levels (teacher and student) within the study.

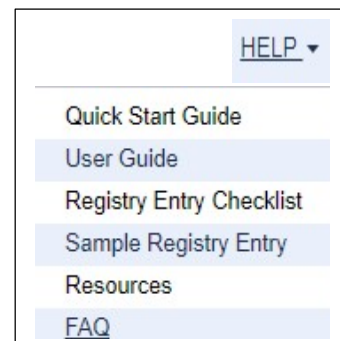
Sub-entries within one registry entry will each have a unique registry ID number with the same base registry number (e.g., Number 2798.1, 2798.2, 2798.3).

Following the instructions and during the initial set-up, REES asks you if the study has more than one sub-entry. The first thing to decide when you are setting up the study is whether the evaluation includes more than one study design (e.g., an RCT and a QED) and/or includes outcomes that are assessed at different levels (e.g., student-level measures such as student achievement and teacher-level measures such as instructional practice). For each design and each level, there should be a separate sub-study.

Navigating in REES

Help menu. REES provides several online help resources, which can be accessed through the “HELP” menu (shown at right).

Toolbar. Within each section of the registry, there is a toolbar at the bottom of the page with the following buttons for saving the entry and navigating to the home page or the next section.



There are also buttons that allow you to download the entry in HTML or as a PDF.



More information button.



Throughout REES, there are “information” buttons, which appear as a question mark inside a blue circle (as shown here). When you click on the question mark, a text box appears providing additional information on the topic.

Navigation menu. In addition, you may select the section that you want to navigate to using the dropdown menu at the top of the screen. Make your selection from the menu, and click to navigate to the selected section.

[Go to section ▾](#)

Section I: General Study Information
Section II: Description of Study
Section III: Research Questions
Section IV-A: Study Design (Selection)
Section IV-B: Study Design (Input)
Section V: Sample Characteristics
Section VI: Outcomes
Section VII: Analysis Plan
Section VIII: Additional Materials

Please note that the **sections should be completed in order**, because the questions and pre-populated information in later sections are dependent on what was entered in earlier sections. For example, you must select the type of study design (in Section IV-A) before you can input the details of that study design (in Section IV-B). Similarly, details of the study design must be entered before the sample characteristics can be added. And information about outcomes cannot be added before research questions are entered.

Adjusting text box size. At times, you will enter information about the study in a text box. The size of the text box can be adjusted to accommodate the amount of text you need to enter (e.g., made larger to see more text). You can click the bottom right-hand corner of the text box (circled in blue) and slide the mouse to adjust the size of the text box.

Brief Abstract





Optional comments. At the end of each section in REES, there is a text box, which you can use to provide any comments or clarifying information.

Optional Comments for Section I

Please add any additional clarifying information you would like to include for section I.

“Other” category responses. When selecting from a list of options, if you want to select the “other” option, type the response in the text box, and then click the “+” button (circled in orange) to add the “other” response.

Other:  

Other:  

☒ other: Office of Elementary and Secondary Education

Sharing access to a REES entry. You will be able to set up access to the study entry for others on the project team, either with *administrator* access, giving them the ability to edit, delete or publish the entry, or with *collaborator* access, giving them the ability to edit the entry but not delete or publish. Once an entry has been initiated, it is possible to give access to other individuals, as Administrators (blue circle below) or Collaborators (red circle below). If either option is selected, a box appears that asks about the kind of access that is desired and the name of the person you wish to add.

Registry ID : 4220 Add Sub Registry		
Edit	Delete	
Publish	4220.1v1	Example Study
		EIREvalTA AbtAssociates Add/Remove?
		None Add/Remove?

Edit Authorized Users

Administrators
EIREvalTA AbtAssociates [Remove](#)

Collaborators
None

Add Another User as a(n):

☒ Administrator

☐ Collaborator

Enter the Email of the User You Wish to Give Access to.

Enter Email Here

[Confirm](#)

Section I: General Study Information

Section I covers general information about the study, including the title, the evaluator's name, the funding source, IRB approval information, the study start and end dates, the intervention start date, the timing when the study is registered, and a brief study abstract.

Study Title. To start, you will enter a title for the study – or for each sub-entry, if you have more than one entry for the evaluation. We recommended including the ***name of the intervention*** in the study title. For evaluations that have sub-entries, a sub-entry's title should include a brief phrase to distinguish each sub-entry from the others (e.g., identifying one focused on student achievement and the other on teacher instruction).

Example Study Titles

The study title for an evaluation of a hypothetical intervention called *STEM Academy* could be:

- Evaluation of the effects of *STEM Academy* on middle school students' STEM achievement

If the study examined impacts on teacher outcomes as well as student achievement, the evaluation would have two sub-entries:

- Evaluation of the effects of *STEM Academy* on middle school students' STEM achievement
- Evaluation of the effects of *STEM Academy* on teacher instructional practices

If any sub-entries include only exploratory analyses (i.e., no confirmatory analyses), then the title for the sub-entry should indicate that it is an exploratory study. Alternatively, you may instead choose not to pre-register exploratory analyses, in which case, you would not enter any exploratory studies in REES.

Evaluator information. Enter the Principal Investigator's (PI) first name, last name, and affiliation in the appropriate boxes. Co-PIs can be added as well, if applicable.

Primary funding source. Select the funding source(s) from the multiple choice options. If you select "foundation" or "other source," there is an open-ended text box that enables you to specify the funder. In addition, there is a space to enter the award number(s) for the project.

IRB approval. Enter the name of the Institutional Review Board (IRB) that approved the study, the approval date, and IRB approval number.

Other registration. If the study is entered in another registry, provide the other registration name, date, and registration number.

Study dates and REES registration timing. Enter the study start date and end date, as well as the intervention start date. Dates may be typed directly into the cell (using a YYYY-MM-DD format), or you may use a calendar to select the dates. In addition, using the multiple choice options, select the one that best reflects the timing of the REES entry – prior to implementation of the evaluation, prior to collection of outcome data, prior to analysis of outcome data, or a retrospective registration (i.e., after analyses have been conducted).

Study Abstract. An abstract describing the study can be typed or pasted into an open text box for that purpose. We suggest that the abstract include a brief description of the following information: (a) the intervention; (b) study design; (c) outcomes; (d) timing of outcome measurement; (e) grade levels; and (f) number of cohorts (of schools and/or students) in the sample.

Keywords. There is an open text box in which keywords can be entered. Note that the search function in REES is not restricted to searching keywords. Any searches conducted in REES will search the entire entry, so it is not necessary to include keywords for the purpose of facilitating searches.

Other comments. In addition, there is space at the end of each section to add any additional comments that you would like to provide about the section. If there is any additional information that was not already captured, feel free to add any additional comments.

Section II: Description of Study

Section II covers information about the intervention and comparison conditions, specifically, the intervention type (e.g., curriculum, professional development), intervention topic area, number of intervention conditions in the study (i.e., “intervention arms”), the targeted school level (i.e., grade levels), intervention location, and a brief description of the intervention and comparison conditions.

Type of intervention. From the list that is provided, you can mark all the intervention types that apply. The options are: (a) curriculum/product, (b) professional development, (c) policy, (d) practice, and (e) other. If you select “other,” you should enter a description of the type of intervention in the text box.

Topic area of the intervention. From the list that is provided (see left), you can mark all the intervention topic areas that apply. The options (see below) are: (a) early childhood education, (b) education technology, (c) English language learners, (d) mathematics and science education, (e) postsecondary and adult education, (f) reading and writing, (g) social and behavioral context for academic learning, (h) special education, (i) educational leadership, and (j) other. If you select “other,” you should enter a description of the topic area in the text box.

Number of intervention arms. Next, you can enter the number of intervention arms in the study. The number refers to the number of intervention conditions that are being studied, and *does not include the comparison condition*. If one intervention is being compared to another intervention (or an enhanced version of an intervention is being compared to the regular version, then one intervention is the “treatment” and the other is the comparison condition, so there is only one intervention arm.

School level / grade levels. On the list of grades levels, mark all that are included in the evaluation. The options for grade level range from pre-kindergarten through college, and there is also an option for “other.” If you select “other,” you should enter a description in the text box.

Urbanicity and geographic location. Under the heading “Target School Type,” you can select all the *school types – or locale(s)* – that are included in the evaluation. Specifically, indicate whether the evaluation takes place in rural, urban, and/or suburban locale(s). You can also mark “other,” and enter a description of the locale in the text box.

There is also a place to provide information about the **geographic location** of the intervention implementation. For evaluations *in the United States, mark the region(s)* where the evaluation takes place (West, Midwest, Northeast, and/or South). Click the link that says, “Click to view a map of the United States regions” to see the states in each region. If the evaluation takes place *outside the U.S., you can select the continent or continents* where the evaluation is located (see next page).

In addition, there is a text box to provide more information about the location of the evaluation. For example, if the intervention takes place in the U.S., you can enter the states or cities. If it takes place in an international location, you can enter the countries or cities.

Brief description of the intervention condition(s). A brief description of the intervention can be typed or pasted into an open text box for that purpose. If there is more than one intervention arm, there will be a text box for each intervention arm, so you can provide a description of each intervention condition. The correct number of text boxes will be provided based on your early entry about the number of

intervention arms. We suggest that the description of the intervention (or each intervention arm, if there is more than one) provide information about the key intervention activities, including their content, objectives, intensity, duration, and method of delivery.

Brief description of the comparison condition. Another text box is provided for you to enter a brief description of the comparison condition. The description should include information about the experiences, instruction, and/or practices offered to the comparison group. In addition to the text box, there is also a place to mark whether the comparison condition is business-as-usual or another, alternative intervention.

Other information Section II. Use this text box to enter additional explanation about the study design.

Section III: Research Questions

In this section, you will enter the study's research questions.

State the confirmatory research question(s), one question per box. There are text boxes for you to enter the evaluation's confirmatory research question(s). The confirmatory research question are questions that focus on the primary impact(s) that the study is designed to examine.

You can enter research questions, one per text box, by typing them directly into the text box or by copying and pasting them. When you begin entering a question into a text box, a new text box appears automatically, which enables you to add an additional research question if you have another confirmatory research question.

You may add exploratory research question(s) (again, one per text box). Exploratory research questions do not focus on the primary impact(s) of the intervention. They focus on generating hypotheses (not confirming hypotheses) about the intervention's effects. Exploratory research questions may investigate effects on secondary outcomes, at secondary time points (e.g., interim effects, longer-term follow-up periods), and/or for subgroups. No additional information about exploratory research questions will be requested in REES, and including them is optional. However, you may want to document *a priori* exploratory research questions to distinguish them from *post hoc* exploratory analyses.

At a minimum, research questions should include the following:

Example Research Questions

Confirmatory Research Question

- What is the impact of STEM Academy compared to business-as-usual instruction in middle school on students' science achievement?

Confirmatory Research Question with additional information

- What is the impact of three years of exposure to STEM Academy compared to business-as-usual instruction on science achievement among students in grade 8?

Exploratory Research Questions

1. What is the impact of one year of exposure to STEM Academy compared to business-as-usual instruction on science achievement for students in grades 6-8 combined, and separately by grade level?
2. What is the impact of three years of exposure to STEM Academy compared to business-as-usual instruction on earth science and physical science subtests for students in grade 8?

- *Name of the intervention*
- *Counterfactual condition* (business-as-usual or name of comparison condition)
- *One outcome domain*
- *Education level of the students* (preschool, elementary school, middle school, and/or high school)

Although research questions focus on a single outcome domain, the study may examine impacts on more than one outcome measure within the outcome domain. For example, the study may have two measures of math achievement. The specific outcome measures will be defined in Section VI.

Additional information may be included in the research questions to help distinguish them from each other – particularly to distinguish confirmatory and exploratory research questions that examine impacts on the same outcome domain and at the same education level. For example, this additional information may include:

- *Outcome measure(s)* within a given outcome domain.

- *Timing of outcome measurement* (e.g., timing based on implementation year; amount of exposure; interim timing, immediate posttest, follow-up after time has elapsed since the end of the intervention).
- *Subgroups* (e.g., defined by cohorts, grade levels, or other characteristics).

Section IV-A: Study Design (Selection)

From a list of four types of study designs, you will select the one that applies to your evaluation. The four options are:

- (1) Randomized trial (RT),
- (2) Quasi-experimental design with comparison group (QED),
- (3) Regression discontinuity design (RDD), and
- (4) Single case design (SCD).

The study design that is selected will determine the set of questions to be completed in Section IV-B.

Study Design Types

Randomized Trial – Comparison group design in which units (individuals or clusters) are assigned to condition through a random process.

Quasi-Experimental Design – Comparison group design in which units are assigned to condition through a non-random process

Regression Discontinuity Design – Comparison group design in which units are assigned to condition based on falling above or below a set threshold (i.e., cut-off).

Single Case Design – an individual case provides its own control as it is measured repeatedly across different conditions over time.

Section IV-B: Study Design (Input)

This section focuses on the details of the study design, including the unit of assignment, blocking, clustering, and unit of measurement. Because many details of the study design vary by the type of design (e.g., matching in QEDs; probability of assignment in RCTs; information about the forcing variable for RDDs; design and participants for single case designs), ***the set of questions in this section vary based on the design type entered in Section IV-A and based on responses to questions within this section.***

Despite the differences across study design types, many of the questions about the study details are the same for RCTs and QEDs, which are the focus of this instruction guide. We provide instructions for these two design types, but not RDDs or SCDs. For each question about the study design, we indicate the design type(s) to which the question applies using the “RT” and “QED” icons.

Details about Randomized Trials and Quasi-experimental Designs

This section covers information about the study design for randomized trials, quasi-experimental designs with comparison group, and regression discontinuity designs. The series of questions are used to determine the type of RT or the type of QED.

1. ***Unit of assignment.*** The same question is asked regardless of whether the method of assignment is random (RT) or non-random (QED). Note, however, that for QEDs, the question asks “*What is the unit at which the intervention is implemented?*” instead of asking for the unit of assignment

RT

QED

For each design type, you will make one selection indicating the unit of assignment from the following options:

- (1) Student
- (2) Teacher Class Section
- (3) Teacher
- (4) School
- (5) District
- (6) Other (with a text box for a one or two-word description)

2. ***Assignment within sites or blocks.*** For RTs and QEDs, you will be asked whether random assignment or implementation occurs within sites or blocks, and respond either “Yes” or “No.”

RT

QED

Some examples of assignment or implementation within blocks (also called strata) include:

- A study takes place in multiple school districts. Within each school district, there are intervention schools and comparison schools. In this example, the blocks are school districts.
- A study takes place in multiple schools. Within each grade level in each school, students are assigned (randomly or non-randomly) to the intervention or comparison condition in each school year for several years. In this example, the blocks are school years within grades within schools.
- A study takes place in multiple schools – some are in rural areas and some are in urban areas.

Blocking (or *stratification*) refers to grouping or pairing units (i.e., individuals or clusters) prior to assignment them to intervention or comparison conditions, based on a shared characteristic or characteristics likely to be related to outcome measures.

Schools are assigned or matched within locale. In this example, the blocks are rural locale and urban locale.

Blocking or stratification is not used when individuals or clusters in the sample are not grouped or paired prior to random assignment, matching, or selection into the intervention and comparison groups. For example, students are not grouped by school, grade level, or other characteristics prior to being assigned to or selected for the intervention or comparison group.

If you select “Yes” to indicate that assignment or implementation occurs within blocks, a follow-up question will ask you define the blocks. You can select from a list of options (teacher, school, district, time period, or other). For other, you should enter a brief description of the blocks. The description you enter

here will be used later to prompt you about the sample size within blocks.

If you select “No,” there will not be any additional follow-up questions about blocking.

Please define the sites or blocks.

☐ Teacher

☐ School

☐ District

☐ Time period

Other:



3. **Probability of random assignment to treatment.** For RTs, you will be asked about the probability of random assignment to treatment. The question will differ slightly depending on whether you marked “Yes” or “No” about whether assignment occurs within blocks.

RT

- If you indicated that there is no blocking, you will be asked: *Was the probability of assignment to treatment the same across all units?*
- If you indicated that there is blocking, you will be asked: *Was the probability of assignment to treatment the same across blocks or strata?*

If you select “Yes” in response, a follow-up question will ask you to provide the probability of assignment to treatment in decimal format. For example, if half of the individuals or clusters (in the sample or within each block) were randomly assigned to the intervention, then you would enter .50 in the text box.

If you select “No,” a follow-up question will ask you to describe the differing probability of assignment across blocks (for blocked RTs) or across all units (for RTs without blocking). For example, if half of students were assigned to the intervention in some schools and two-thirds of students were assigned to the intervention in other schools, then you could provide this information in the text box, as shown here.

What was the probability of assignment to treatment?

Please provide a reply in decimal form to move to the next question.

Please describe the differing probability of assignment to treatment across blocks.

In six schools, half of the students (.50) were randomly assigned to the intervention.
In two schools, two-thirds of the students (.67) were randomly assigned to the intervention.

4. *Unit at which outcome data are measured.* The same question is asked for RTs and QEDs: *What is the unit at which outcome data are measured?* From a list of options, you will make one selection:

RT

QED

- Student
- Teacher class section
- Teacher
- School
- District
- Other (with a text box for a one or two-word description)

5. *Intermediate clusters.* There is an optional section that allows you to identify an intermediate level of clustering, if there is one. For example, a study may assign schools and measure outcomes at the student level. However, student outcomes

RT

QED

may only be measured in a subsample of classrooms, making classrooms an intermediate cluster level.

Optional Section:

Are there any intermediate clusters between the unit of random assignment and the unit of measurement?

☐ Yes

☐ No

If yes, please describe:

If you select “Yes,” then you should describe the intermediate cluster level (e.g., “classroom”).

If you select “No,” then there are no further questions about the study design.

6. *Study Design: Matching Procedures (QEDs only)*

Additional study design details for QEDs focus on **matching procedures**. If your QED uses matching, there are four additional questions to complete. If the study does not use matching, you should describe the design in the comment box at the end of this section (Section IV-B: Study Design (Input)).

QED

- a. *Covariates used to select comparison units.* From the list of covariates, mark all that will be used to select comparison students. The list includes:
- Student pretest
 - Grade
 - Gender
 - Free or reduced-price meals
 - Race
 - English language learner status
 - Special education status
 - Other

For “other,” enter each additional covariates in a text box.

- b. *Distance measure.* Provide information about the distance measure that will be used for matching treatment and comparison students. From the options, you can select one:
- Exact

- b. Mahalanobis
- c. Propensity score
- d. Other.

RT

QED

For “other,” provide information about the distance measure in the text box.

- c. *Matching method*. Select the matching method that will be used. From the options, select one:
 - a. Nearest neighbor
 - b. Nearest neighbor with caliper
 - c. Sub-classification
 - d. Full matching
 - e. Weighting adjustment
 - f. Other

For “other,” provide information about the matching method in the text box.

- d. *Treatment-to-comparison matching ratio*. Lastly, you can select the treatment-to-comparison matching ratio – i.e., the number of comparison units matched to each treatment unit. The treatment-to-comparison ratio options are:
 - a. 1:1
 - b. 1:2
 - c. 1:3
 - d. 1:4
 - e. Other

For “other,” provide information about the matching ratio in the text box.

- 7. *Verify the study design*. The next step is to verify the study design, by clicking the button that says:

Verify My Design to Proceed to Section V

A pop-up window will appear listing five design classifications, one of which will be highlighted. The five classifications are:

1. 1-level;
2. Multisite (blocked);
3. 2-level nested or cluster randomized trial;
4. 3-level nested or cluster randomized trial; and
5. Multisite (blocked) nested or cluster randomized trial.

The pop-up windows with the 5 design classifications for RTs and QEDs are shown below.

- If the highlighted design accurately reflects your study, then click the button that says, “**Correct – Save & Proceed to Section V.**” After clicking correct:
 - RTs will proceed to Section V: Sample Characteristics.
 - QEDs will need to provide some additional details about matching (described below).
- If the highlighted design does not accurately reflect your study, then click the button that says, “**Incorrect – Edit Responses.**” Doing so will enable you to re-enter the correct information.

Your Design is being classified as :



RT: 1-level

Correct - Save & Proceed to Section V

Incorrect - Edit Responses

Design	Description	Example
RT: 1-level	Random assignment of individuals to condition.	Students in one after-school center randomly assigned to condition.
RT: Multisite (Blocked)	Random assignment of individuals to condition within site (block).	Within multiple after-school centers, students randomly assigned to condition. Random assignment takes place within each center.
RT: 2-level Cluster Randomized Trial	Individuals nested within clusters. Entire clusters randomly assigned to condition.	Students nested within schools and schools are randomly assigned to condition.
RT: 3-level Cluster Randomized Trial	Individuals nested within sub-clusters. Sub-clusters nested within clusters. Entire clusters randomly assigned to condition.	Students nested within classrooms, classrooms nested within schools, and schools are randomly assigned to condition.
RT: Multisite (Blocked) Cluster Randomized Trial	Individuals nested within clusters. Random assignment of clusters to condition within site (block).	Students nested within schools. Within districts, schools randomly assigned to condition. Random assignment takes place within each district.

Your Design is being classified as :



QED: 1-level

Correct - Save & Proceed to Section V

Incorrect - Edit Responses

Design	Description	Example
QED: 1-level	Intervention implemented at individual level.	Some individuals within a school implement an intervention.
QED: Multisite (Blocked)	Intervention implemented at individual level within sites (blocks).	Some individuals within multiple schools implement an intervention.
QED: 2-level nested	Intervention implemented at cluster level.	Students nested within schools. Some schools implement an intervention.
QED: 3-level nested	Individuals nested within sub-clusters. Sub-clusters nested within clusters. Intervention implemented at cluster level.	Students nested within teacher nested within schools. Some schools implement an intervention.
QED: Multisite (Blocked) Nested	Individuals nested within clusters. Intervention implemented at cluster level within sites (blocks).	Students nested within schools. Some schools within multiple districts implement an intervention.

Section V: Sample Characteristics

RT

QED

This section asks for details about sample characteristics. The specific questions in this section are ***tailored to the details of the study design provided in Section IV***. Specifically, questions ask for **sample sizes** and **inclusion and exclusion criteria** for:

- The unit at which outcomes will be measured (e.g., students, teachers)
- Any cluster levels
 - if assignment takes place at the cluster level (e.g., schools) and
 - if there are any intermediate clusters (e.g., classes)
- Blocks, if assignment occurs within blocks (e.g. districts, cohorts).

The questions about sample characteristics are the same for RTs and QEDs.

1. **Sample sizes.** You will enter sample size information for each level in the design.

a. For a ***one-level design***, you will need to enter the number of:

- ***Individuals in each condition*** (e.g., students; teachers)

Approximate number of students in the intervention condition:	<input type="text"/>
Approximate number of students in the comparison condition:	<input type="text"/>

b. For a ***multisite (blocked) design***, you will need to enter the number of:

- ***Individuals in each condition within each block***
- ***Blocks***

Approximate number of students in the intervention condition within each school:	<input type="text"/>
Approximate number of students in the comparison condition within each school:	<input type="text"/>
Number of schools:	<input type="text"/>

In this example, the individuals are students and the blocks are schools. However, the individuals and blocks could be defined in many other ways. For example, if teachers were assigned to condition within cohorts (or in cohorts within schools) and teacher outcomes were to be measured, then teachers would be the individuals and cohorts (or cohorts within schools) would be the blocks.

c. For ***2-level, cluster assignment designs***, you will need to enter the number of:

- ***Individuals per cluster***
- ***Clusters in each condition***

Approximate number of students per school:	<input type="text"/>
Number of schools in the comparison condition:	<input type="text"/>
Number of schools in the intervention condition:	<input type="text"/>

In this example, the individuals are students and the clusters are schools. However, the individuals and clusters could be defined in other ways. For example, if teachers were assigned to the intervention or comparison condition and student outcomes were measured, then students would be the individuals and teachers would be the clusters. Or, if schools were assigned to condition and teacher outcomes were measured, then teachers would be the individuals and schools would be the clusters.

- d. For **3-level, cluster assignment designs** (with intermediate clusters), you will need to enter the number of:

- **Individuals per intermediate cluster**
- **Intermediate clusters per cluster**
- **Clusters in each condition**

Approximate number of students per intermediate cluster (classes):	<input type="text"/>
Approximate number of intermediate clusters (classes) per school:	<input type="text"/>
Number of schools in the comparison condition:	<input type="text"/>
Number of schools in the intervention condition:	<input type="text"/>

In this example, the individuals are students, the intermediate clusters are classes, and the clusters are schools. However, the individuals, intermediate clusters, and clusters could be defined in other ways. For example, individuals could be teachers, intermediate clusters could be schools, and clusters could be school districts.

- e. For **multi-site cluster assignment designs**, you may or may not have intermediate clusters, which will affect the sample size information that needs to be entered.

If there are NO intermediate clusters, then you will need to enter the number of:

- **Individuals per cluster**
- **Clusters in each condition within each block**
- **Blocks**

Approximate number of students per school:	<input type="text"/>
Approximate number of schools in the comparison condition within each district:	<input type="text"/>
Approximate number of schools in the intervention condition within each district:	<input type="text"/>
Number of districts:	<input type="text"/>

In this example, students are the individuals, schools are the clusters, and districts are the blocks. However, the individuals, clusters, and blocks could be defined differently. For example, if teachers were assigned to condition within subject area (e.g., math or ELA), then subject area would be the blocks, teachers would be the clusters, and students would be the individuals.

If there are intermediate clusters, then you will need to enter the number of:

- ***Individuals per intermediate cluster***
- ***Intermediate clusters per cluster***
- ***Clusters in each condition within each block***
- ***Blocks***

Approximate number of students per intermediate cluster (classes):	<input type="text"/>
Approximate number of intermediate clusters (classes) per school:	<input type="text"/>
Approximate number of schools in the comparison condition within each district:	<input type="text"/>
Approximate number of schools in the intervention condition within each district:	<input type="text"/>
Number of districts:	<input type="text"/>

In this example, students are the individuals, classes are the intermediate clusters, schools are the clusters, and districts are the blocks. However, the individuals, intermediate clusters, and blocks could be defined differently. For example, if teachers were assigned to condition within subject area (e.g., math or ELA) and student outcomes were measured in one randomly selected class, then students would be the individuals, class would be the intermediate cluster, teachers would be the clusters, and subject area would be the blocks.

2. Inclusion and exclusion criteria. For both RTs and QEDs, you will be asked if there were certain individuals, intermediate clusters, clusters, and/or blocks that were **targeted for the study** (depending on the details of the design described in Section IV). And you will be asked if there were certain individuals, intermediate clusters, clusters, and/or blocks that were **excluded from the study**.
- If you mark “Yes,” you will be prompted to describe who was targeted (or excluded) in the text box.
 - If you mark “No,” no further questions will be asked about who was targeted (or excluded from) the study.

These questions will be asked for each level in the design, as they were described in Section IV.

Some examples of *targeting certain students* for the study are:

- Students scoring below-grade level in reading
- Students who will be the first-generation to college, if they enroll in college after high school
- Students in grade 4

Some examples of *excluding certain students* from the study are:

- Students in self-contained special education classes
- Students who enter study schools after random assignment
- Students who have been retained in grade
- Students who are unable to be assessed because of the accommodations required

Some examples of *targeting certain schools* for the study are:

- Schools with a defined percentage (e.g., 80%) or more students qualifying for free or reduced-price meals
- Schools in rural areas
- Middle schools with departmentalized math and science instruction
- Schools with at least two ELA teachers per grade level

Some examples of *excluding certain schools* from the study are:

- Charter schools
- Schools with a first-year principal
- Schools without internet access

Section VI: Outcomes

This section is the same for all study design types. For each confirmatory research question, you will be asked to enter the **outcome domain**, information about the minimum **detectable effect size**, and information about **each outcome measure** that will be examined to address the research question.

1. **Outcome Domain.** For each confirmatory research question, the first question asks for the student outcome domain. REES assumes that there is one outcome domain per confirmatory research question.

You can select one outcome domain from many options:

- Student achievement
 - Literacy
 - Mathematics
 - Science
 - Social studies
 - Other achievement domain (provide information in the text box)
- Student social, emotional, and behavior domains
 - Social skills
 - Attitudes
 - Behavior
 - Other social, emotional, & behavior domain (provide information in the text box)
- Student progress/completion domains
 - High school completion
 - Graduation status
 - Drop out status
 - Other progress/completion domain (provide information in the text box)
- Other student outcome domain (provide information in the text box)
- Teacher outcome (provide information in the text box)
- Principal outcome (provide information in the text box)
- School outcome (provide information in the text box)
- Other outcome (provide information in the text box)

2. **Minimum detectable effect size.** You may report the minimum detectable effect size (MDES) that the study can detect for the outcome measures that will be examined, based on the details of the study design (e.g., sample size, R-square, ICC if relevant). There is an underlined link to download *PowerUp!* (circled in red here), which can be used to calculate an MDES for the study. In addition, you have the option to attach the power analysis for the study. (Section VIII, discussed later, enables you to include attachments about your study.)

Please report the minimum detectable effect size (MDES) or the smallest effect size the study can detect with power equal to 0.80 for the outcome measures for Confirmatory Question 1 here:

If needed, [download PowerUp! to calculate a MDES for your study.](#)

Please attach your full power analysis in Section VIII.

3. **Measure.** You will be prompted to provide the following information about each outcome measure, beginning with outcome measure 1 for confirmatory question 1:

- **Name** of the outcome measure, be entering it in a text box.
- **Scale**, by selecting one option: continuous, ordinal, or binary.
- **Reliability**, by indicating if the measure is a normed or state test, or not. Because the WWC considers standardized tests, such as normed or state tests, to be reliable, REES does not prompt you to provide information about reliability. If the outcome measure is not a normed or state test, you will be prompted to enter information about the reliability of the measure.

Is the outcome from a normed or state test?

☐ Yes

☒ No

Test-retest reliability	<input type="text"/>	<input type="checkbox"/> N/A
Internal consistency:	<input type="text"/>	<input type="checkbox"/> N/A
Inter-rater reliability:	<input type="text"/>	<input type="checkbox"/> N/A

Note that if the outcome measure is a *standard educational measure*, such as attendance, dropout, grade point average, or graduation, you will mark N/A for each type of reliability. Do not be concerned that you cannot enter reliability data for these types of standard educational measures, because the WWC considers them to be reliable.

If the measure is not a normed or state test, or a standard educational measure, and no reliability data are available, enter N/A for all types of reliability. If the plan is to calculate reliability from the study outcome data, enter this in the Comments box for Section VI-B.

- **Consistency** of data collection, by indicating if the same outcome measure will be collected in both the intervention and comparison conditions. If not, you should explain in the text box.

If you will examine one or more additional outcome measures for confirmatory question 1 (i.e., in the same outcome domain), then **click the link to add an additional outcome measure** to enter information about each outcome measure.

[Add additional outcome measure for confirmatory question 1](#)

Section VIII: Analysis Plan

This section focuses on details about the analysis plan, including collection of baseline data; covariates in the analytic model at the individual level, and at cluster levels for cluster designs; the analytic model; handling of missing outcome data; and adjustments for multiple comparisons if there are multiple outcome measures within the same domain. The questions in this section are the same for RTs and QEDs; however, they vary depending on whether the design is an individual-level or cluster-level design (and whether there are intermediate clusters).

1. **Baseline data.** The first question asks if baseline data will be collected prior to the start of the intervention, and you can select “Yes” or “No”.
 - **If you select “Yes,”** you will be prompted to respond to the open-ended question, “What baseline data will be collected?”
 - **If you select “No,”** you will not be asked any more information about baseline data.

Note that data are considered to be “baseline” data if they are measured before (or at the beginning of) the intervention, even if they are obtained at a later time point. For example, administrative data on student characteristics and pre-intervention test scores may be obtained by the evaluator after the start of the intervention. These data are still considered baseline data.

2. **Covariates.** Next, you are asked to provide information about the covariates that will be included in the analytic model – at the individual level (e.g., students), and at the cluster level (e.g., schools) for cluster designs. In addition, if the design includes an intermediate cluster level (e.g., classes), then you will be asked about covariates at the intermediate cluster level.

For **individual-level covariates**, you can select all that apply from the following options:

- Gender
- Free/Reduced-Price Lunch status
- Race
- Grade
- English language learner status
- Special education status
- Student pretest
- Other: Provide information in the text box, and then click the “+” button to add to the list of covariates.

Note that this list of options remains the same regardless of what the individual level is (e.g., students or teachers).

For **cluster-level covariates** (and for the intermediate cluster level, if included in the design), you can select all that apply from the following options:

- Aggregate of individual characteristics
- Aggregate of baseline scores
- Other: Provide information in the text box, and click the “+” button to add to the list of cluster-level covariates.

3. **Analytic model.** There are two options for sharing the analytic model that will be used to estimate intervention impacts.

- **REES equation editor.** You can use the equation editor provided in REES to enter the equation for the analytic model. You can click the link in REES (circled in red) to open the equation editor. You use the text box provided to define the terms in the model.
- **Attachment.** An alternative to entering the equation in the REES equation editor is to attach a document with the model and definition of terms in Section VIII: Additional Materials (described below).

Please describe the analytic model. Please either provide the analytic model here and define the terms, or upload a document with the model and definition of the terms to section VIII: Additional Materials.



4. **Handling missing outcome data.** You can provide information about how missing outcome data will be handled by selecting one from the following options:

- Delete all cases with missing data for any outcome measure
- Delete cases with missing data for the outcome measure being analyzed
- Impute missing outcome data
- Other: Please describe (You can provide information in the text box)

5. **Adjustments for multiple comparisons.** If you will have more than one measure for a confirmatory research question, then you will be asked whether you will adjust for multiple comparisons. You will be asked about multiple comparisons adjustments for each confirmatory question with more than one outcome measure. For example, if there are three outcome measures for confirmatory question 1 and two outcome measures for confirmatory question 2, then you will be asked about multiple comparison adjustments for each of the confirmatory questions.

Multiple comparisons adjustments

Conducting multiple tests of an intervention's effects on highly correlated outcomes increases the chance of rejecting the null hypothesis of no impact and mistakenly concluding that there is an impact, when there is not (called Type I error). To reduce the possibility of this error, evaluators may (and the WWC will) apply an adjustment to account for multiple comparisons.

- **If you select "Yes,"** you will be asked several follow up questions:
 - The **number of planned comparisons that will be adjusted**, which you will enter in the text box.

- The **correction for multiple comparisons that will be used**. You can select one from the following options:
 - Benjamini-Hochberg correction
 - Bonferroni procedure
 - Tukey procedure
 - Other: Please describe. (You can provide information in the text box.)
- ***If you select “No,”*** you will not be asked any follow-up questions.

Section VIII: Additional Materials

The last section in REES allows you to add links and files to support your registry entry. Examples of materials to support your registry entry may include the following:

- Study proposal
- Sampling plan
- Links to the study website
- Logic model
- Fidelity measure
- Power analysis
- Measures (instruments) to be used
- Analytic models

In addition, after the study is complete, you may want to add links to:

- Published or unpublished papers
- Study reports
- Dataset with study data
- WWC review

You can provide links to an external source or sources, and /or you can attach a document or documents.

To **add a link to an external source**, you can paste a URL into the space provided, and then you can include a description in the text box of the information being linked. You can add links to multiple external sources, as needed. To **attach a file**, you can drag and drop files to the space indicated, or you can click the “+ Choose files...” button, which will open a window that allows you to navigate through the folders and files on your computer to select the file you want to upload. You can add multiple files of any file type; however, the file size must be no more than 100 MB.

Link : 1
Please use a fully qualified URL, e.g. <https://sreereg.icpsr.umich.edu/sreereg>
URL:

Description:

Add Files
Any file type, maximum size 100 MB.

drag and drop files here or choose files

+ Choose files...