

WWC PROCESS Brief

The What Works Clearinghouse (WWC) is an initiative of the U.S. Department of Education’s Institute of Education Sciences. The WWC evaluates research studies that look at the effectiveness of education programs, products, practices, and policies, which the WWC calls “interventions.” WWC Process Briefs explain how the WWC does different aspects of its work. For more information, visit the WWC’s web page at <https://whatworks.ed.gov>.

The Screening Process

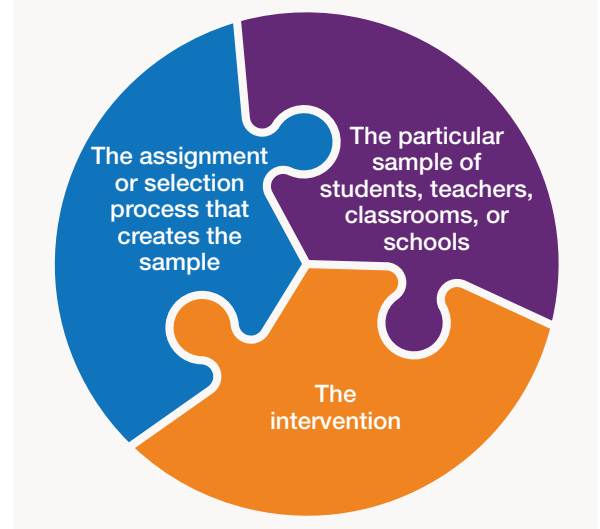
The WWC examines **manuscripts** (that is, journal articles, working papers, dissertations, or other publications or pieces of written research presented as complete sets of findings) to determine if they are eligible to be included in a specific review effort. The WWC first determines whether the manuscript contains a single study or multiple studies and whether any other manuscripts discuss the same study or studies. Once this is determined, WWC reviewers screen each study.

What is a study?

In the first step of the screening process, WWC reviewers determine whether a manuscript contains a single or multiple studies. A **study** is the examination of the effect or effects of an intervention on a particular **sample** (a set of students, classrooms, teachers, or schools).¹ In randomized controlled trials, a study is defined based on the random assignment of participants to groups. In research designs that do not involve random assignment, a study is defined based on the process through which unique intervention and comparison groups were formed. Exhibit 1 demonstrates the components of a study: the assignment process, the sample, and the intervention.

Analyses of different subgroups of a sample are treated as part of the same study as the larger sample as long as they are the result of the same process of sample assignment or selection. For example, suppose a researcher randomly assigned classrooms from within a school to intervention and comparison groups. The random assignment of these classrooms is an element of the study. Separate analyses of **outcomes** for subgroups defined by student race/ethnicity would be considered part of the same study as the analysis of all students in the classrooms, because students in each subgroup were assigned to the intervention and comparison groups via the same process as the larger sample.

Exhibit 1. What elements define a study?



What is the difference between a manuscript and a study?

In most cases, the words *study* and *manuscript* are synonymous. Often, one manuscript will contain a single study, and no other manuscript will analyze data from the same study. However, a study can be presented in more than one manuscript. For example, separate research articles describing short- and long-term outcomes of a reading intervention would be considered a single study if the samples used in the studies were both subsets of the students that were originally assigned to receive the intervention (or not) as part of the evaluation. In this case, the WWC will define one manuscript as the primary citation and list others as additional sources of information when reviewing the study.









A single manuscript can also contain more than one study. For example, one manuscript could describe student outcomes associated with two different teacher quality interventions, with each being evaluated using separate intervention and comparison groups.

¹ This definition of a study applies to research using a group design. Research using another design, such as a single-case design, may use a different working definition of a study.

When is a study eligible for review by the WWC?

The WWC considers a wide range of studies in the education literature when determining which studies to review. Studies have to meet a number of criteria to be considered eligible for review. A specific **review protocol** guides the study screening process (see Exhibit 2). All studies that meet a protocol’s eligibility criteria are reviewed as outlined in the [WWC Process Brief on the review process](#).

Exhibit 2: WWC eligibility criteria and screening process

	Criteria	Example of a study not meeting criteria under the Primary Mathematics Protocol
 Effects	The study must examine the effectiveness of an intervention; that is, the impact of the intervention (compared to no intervention or another intervention) on an outcome.	A study that examines intervention implementation or differences in outcomes associated with differences in intervention implementation.
 Language	The study must be available in English.	A study available only in Spanish.
 Time frame	The study must have been released or made public in the time frame specified in the review protocol.	A study released before the Primary Mathematics Protocol starting year of 1983.
 Original	The study must be an original analysis, as opposed to a re-analysis or summary, of the data on the effect of an intervention.	A literature review of effective programs for teaching fractions.
 Research design	The study must use an eligible research design. Currently, randomized controlled trials, quasi-experimental designs, regression-discontinuity designs, and single-case designs are eligible for review using WWC design standards.	A study examining one group of students before and after an intervention, with no separate comparison group.
 Sample	The study sample has to meet the criteria of the review protocol, including the specific age or grade range of the students and other defining characteristics.	A study of students in high school grades taking Algebra I.
 Outcomes	The study’s outcomes must be related to the topic area and meet criteria described in the review protocol.	A study which looks only at impacts on achievement in science (and not mathematics).
 Eligible for review		

Note: Screening criteria may vary across protocols. All current WWC protocols, including the Primary Mathematics Protocol, are available at <https://ies.ed.gov/ncee/wwc/Protocols>.

Glossary

- A study measures the **effectiveness** of an intervention if it examines the impact of the intervention, compared to another intervention or no intervention, on one or more outcomes.
- An **outcome** is the knowledge, skills, attitudes, and other desired benefits that are attained as a result of an activity.
- A **manuscript** is a journal article, working paper, dissertation, or other publication or piece of written research presented by the author or authors as a complete set of findings.
- A **review protocol** is a document developed by the WWC to determine the scope, eligibility criteria, and relevant outcomes for a specific review product.
- A **sample** is a set of students, classrooms, teachers, or schools chosen from a larger population.
- A **study** is the examination of the effect of an intervention on a specific sample. The key components of a study are the assignment process, the sample, and the intervention.

For more information about the review process, please download a copy of the [WWC Procedures and Standards Handbook](#).