

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 Study Review Process

What is a WWC study review?

Many studies of education interventions make claims about impacts on students’ outcomes. Some studies have designs that enable readers to make causal inferences about the effects of an intervention but others have designs that do not permit these types of conclusions. To help policymakers, practitioners, and others make sense of study results, the WWC conducts a thorough assessment of the quality of evidence the study provided on the effectiveness of an intervention, called a WWC study review. **Certified reviewers**, who have been trained to assess the strength of evidence provided by individual studies, conduct the WWC reviews (see Exhibit 1). Reviews serve as the building blocks for **WWC products**; they are compiled into these products to provide a review of evidence on interventions of interest to practitioners, researchers, and policymakers.

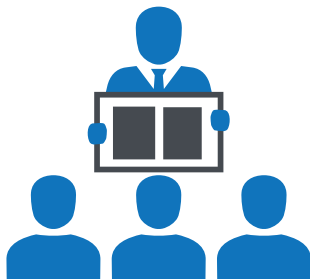
How do individual reviewers assess studies?

The WWC assesses studies using a multistep process. The WWC first identifies the study or studies to be considered for review (e.g., from a search of studies on a particular intervention). Next, it screens studies to ensure they are eligible for review.¹ Finally, the WWC reviews studies. A WWC reviewer uses three tools to review studies: the **WWC Procedures and Standards Handbook**, which provides a detailed explanation of the review process for studies utilizing different designs; a **review protocol**, which provides information specific to evaluating studies on a certain topic (e.g., adolescent literacy, postsecondary education, etc.); and the **Study Review Guide**, which is used to document the application of WWC design standards to review a study. All three tools are available on the WWC website, <https://whatworks.ed.gov>, under Handbooks & Other Resources.

Exhibit 1. Becoming a WWC-certified reviewer

To become a WWC-certified reviewer, individuals must:

1 Participate in an in-person or online training session led by the WWC.



2 Pass a multiple-choice test covering WWC concepts.

3 Successfully complete a review of a study against WWC design standards using the WWC study review guide.



¹ For details on the screening process, see the [WWC Process Brief on the screening process](#).

Using these tools, a reviewer will first screen a study to make sure it examines the intervention of interest, uses an [eligible design](#), and is within the protocol's scope. If the study meets all three of these criteria, then it is eligible for review. For example, if a study claims to evaluate the impacts of a summer reading program, the reviewer must determine that the study analyzes the effectiveness of this program; uses a sample of people for whom the intervention was designed (e.g., students in the appropriate age or grade range); and evaluates impacts using appropriate outcomes (in this case, measures of reading achievement or related outcomes). The reviewer will then closely examine the methods used in the study, apply the WWC design standards as outlined in the WWC Procedures and Standards Handbook, and assign one of three design ratings to the study (see Exhibit 2).

How is the rating confirmed and documented?

WWC reviewers work together to assign each study a final rating (see Exhibit 3 on page 3). At least two certified reviewers look at all studies that are within the scope of a particular WWC review. If the first reviewer rates a study as *Meets WWC Design Standards* (with or without reservations), or thinks more information is needed but that a study could possibly meet WWC design standards, a second reviewer will review the study independently. A senior reviewer then considers both reviews and reconciles any differences. If a first reviewer rates a study as *Does Not Meet WWC Design Standards*, a senior reviewer will review the study and attempt to confirm the rating. If the rating is not confirmed, a second reviewer will independently review the study and all three reviewers will work together to determine the rating.

In some cases, the first and second reviewers may provide different assessments of a study. For example, reviewers could disagree on the final study rating because of differences in the assessment of outcomes that are eligible for review. When disagreements occur, the first and second reviews are reconciled through a discussion among the reviewers and a senior reviewer. The review team leadership also provides insight on the content (subject matter) or methods used in a study, as needed, throughout the review process.

Exhibit 2: The WWC rating system

Every eligible study reviewed by the WWC receives one of three possible ratings regarding the study's design:



Meets WWC Design Standards Without Reservations. Studies receiving this rating provide the highest degree of confidence that the intervention caused the observed effect.



Meets WWC Design Standards With Reservations. Studies receiving this rating provide a lower degree of confidence that the intervention caused the observed effect.



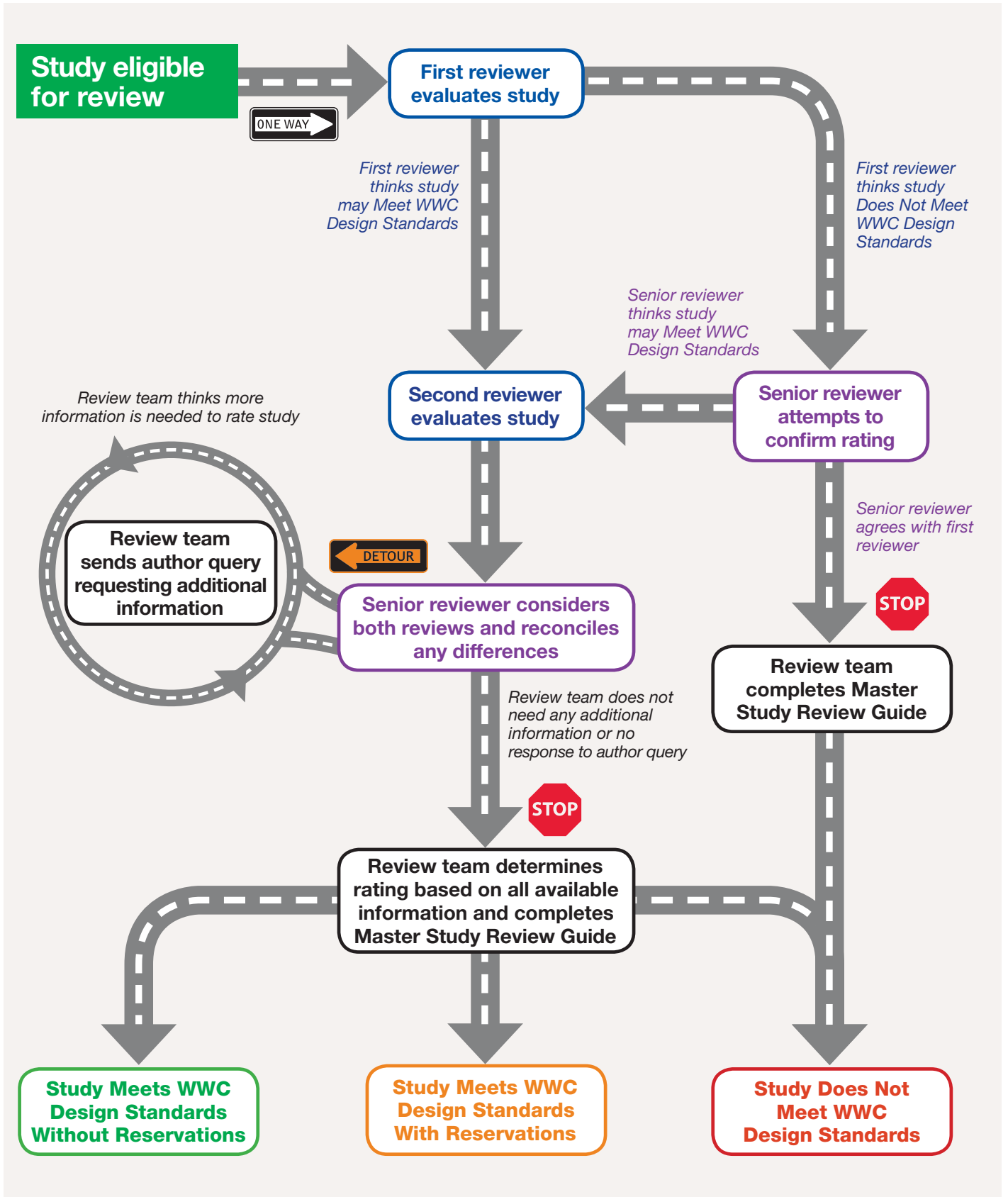
Does Not Meet WWC Design Standards. Studies receiving this rating do not provide confidence that the intervention caused the observed effect.

If a study analyzes multiple outcomes, each analysis receives a separate rating. The study receives a summary rating that is the highest of the ratings given to the individual analyses.

What if a study does not provide all the information a reviewer needs?

If the study does not provide the information the review team needs to rate the study, the WWC will contact the author through an **author query** to ask for the additional information needed. The WWC will request any information mentioned by the authors that could affect the study's rating. Authors typically have two weeks to respond, though they may request an extension. If no response is received, the WWC proceeds with the review according to the available information.

Exhibit 3. Roadmap of the study review process for group design studies



The WWC creates a **Master Study Review Guide** once reviewers agree on the final study rating. This documentation describes the study and the outcomes used to examine effectiveness, explains how the WWC design standards were applied, and documents the final rating. The Master Study Review Guide may be used as a summary of a study review or may be combined with other Master Study Review Guides in some WWC products, which are described in Exhibit 4. All studies with completed Master Study Review Guides are added to the [WWC Database](#) of reviewed studies.

In summary, the WWC's review process ensures the careful and objective review of each study. This process enables the review team to provide a fair and accurate assessment of every study that it considers. When multiple studies on a single intervention are considered for WWC products, these procedures enable the review team to determine which of the eligible studies of an intervention provide the strongest evidence to inform the WWC's findings on the topic.

Exhibit 4: WWC review products

WWC study reviews are used to develop the following main products:



Practice guides help educators address challenges using evidence-based strategies; examples include *Teaching Secondary Students to Write Effectively*, *Teaching Math to Young Children*, and *Dropout Prevention*



Intervention reports review all of the publicly available research on specific interventions and synthesize the findings from rigorous studies to guide evidence-based decisions



Quick reviews provide timely assessments of recent, influential research studies

Glossary

- An **author query** is a request sent to a study author for additional or clarifying information needed to review a study.
- A **certified reviewer** is a person responsible for reviewing studies against the WWC design standards. Reviewers are trained in the standards and must pass a certification process.
- A **Master Study Review Guide** is a document that describes the details of a review and the rating assigned by the review team.
- A **review protocol** is a formal document developed to determine the scope of a review in a specific topic area.

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