# Making What Works Clearinghouse Systematic Reviews in Early Childhood to Grade 12 Relevant and Useful

## Elias Walsh, Dana Rotz, and Jill Constantine (Mathematica)

#### **Background:**

What Works Clearinghouse intervention reports distill findings from high-quality research into meaningful conclusions about the effectiveness of educational programs, policies, practices, and products. The WWC-Organization of Reporting of Evidence on Graduation, Achievement, and Nonacademic Outcomes (WWC-OREGANO) team will produce intervention reports in a variety of topic areas in early childhood, elementary, and secondary education.

For each topic area, a review protocol—describing how the WWC will identify, review, and summarize the effectiveness research on interventions related to the topic area—guides reviews. To ensure that intervention reports reflect content area expertise, each topic area team tailors protocols based on input from prominent experts in the field. Protocols include descriptions of what studies are eligible for review, how the WWC will search for them, how those studies will be reviewed, and which findings will contribute to the WWC's summary of an intervention's effectiveness for education decision makers

### **Objective:**

In this presentation, we will discuss how the WWC conducts its systematic review work in topic areas related to early childhood, elementary, and secondary education to arrive at conclusions that are of practical use to education decision makers. We will describe how each topic area review team makes important decisions and documents them in a protocol that supports this goal. Then we will discuss key features of the WWC intervention reports, which summarize the results of systematic reviews, and how educators can use intervention reports to make decisions. To provide concrete examples, the discussion will be guided by the focus of the new Educator Excellence and School Leadership topic area, and a recently released intervention report in this area. We will also share the report's conclusions.

#### **Summary:**

Research has shown that effective teachers and school leaders can substantially influence student outcomes, including student achievement, and that some teachers and school leaders improve student outcomes at a much faster rate than others. The strong influence of teachers and school leaders on student outcomes, as well as the variation in teacher and school leader effectiveness, has led to the creation of multiple programs designed to help teachers and school leaders improve student outcomes.

The WWC Educator Excellence and School Leadership topic area was launched to guide reviews of interventions aimed at making teachers or school leaders—including principals, assistant principals, or deans of students—more effective at improving student outcomes. Interventions reviewed under this topic area might be delivered in a variety of educational and training

settings. Although the interventions are delivered to teachers or school leaders, research can evaluate intervention effectiveness based on outcomes for either students or educators.

The WWC review protocols for Teacher Excellence and School Leadership guide reviews in this topic area and aims to assess two key research questions:

- Which teacher or school leader–focused interventions improve student achievement, progression in school, social-emotional learning, and behavior in grades PK-12?
- Which school leader—focused interventions improve outcomes for teachers and school leaders that are related to these student outcomes, such as retention and leadership practice?

Like all WWC protocols, the Teacher Excellence and School Leadership protocols support the WWC in developing intervention reports with practical and meaningful conclusions on intervention effectiveness for education decision makers. Some of these protocol components include the following:

- A purpose statement specifies the goals of the review and guiding research questions. The statement narrows the scope of the review to practical and relevant questions that decision makers need answered.
- **Literature search procedures** describe how the team identifies relevant interventions, selects interventions for review, and locates all publicly available research on the selected interventions' effectiveness. These procedures support developing useful and comprehensive products for decision makers.
- Eligibility criteria—including eligible populations, eligible outcome measures, eligible interventions, and eligible research approaches—specify the findings that will contribute to summaries of an intervention's effectiveness. These criteria focus the review on the most meaningful and informative findings for decision makers.
- Special considerations in applying evidence standards detail how reviewers should apply the WWC standards. These considerations include whether to be cautious or optimistic in assessing whether attrition can bias the findings from randomized controlled trials, and what key factors must be similar in the intervention and comparison groups before the intervention for quasi-experimental design studies to provide plausibly valid findings. These considerations guide the WWC's reviews of research so that intervention reports can provide comprehensive summaries of the available high-quality evidence.

We will discuss how review teams make these decisions in the context of the Educator Excellence and School Leadership topic area.

Finally, our presentation will conclude with a discussion of findings from a recent review of evidence in this topic area. The report includes several features designed to help decision makers apply its conclusions, including:

- **Effectiveness ratings** that provide a bottom-line summary of how the intervention affects outcomes. The report explains what the ratings mean and how the WWC came to its conclusions about the intervention.
- **Implementation and cost information** to help decision makers understand what is needed to successfully implement the intervention.
- Information about the context and populations that were included in the research summarized in the report. Knowing the characteristics of students, the types of schools, and where the studies were conducted can help decision makers understand whether the research occurred in settings similar to their own.
- **Short summaries of the report**, including a one-page snapshot and a four-page brief that provide quick reference documents with key information.