

From: Jean Stockard <jstockard@nifdi.org>
Sent: Sunday, July 28, 2013 9:10 PM
To: WhatWorks
Subject: Request for quality review - Reading Recovery and Beginning Reading
Attachments: RM-LD and RR-BR Analysis 7.28.13.pdf

I am writing to request a Quality Review of the report on Reading Recovery for Beginning Reading, which was posted in mid-July, 2013. The report indicates that three studies met the WWC's criteria for review. However, all three studies include a fatal design flaw and thus do not provide an adequate test of the curriculum. Reading Recovery is a curricular program that is administered via one-on-one tutoring with adults. Yet, none of the studies that were reviewed included controls for the size of the instructional group. It is impossible to tell if positive results occurred because students received the Reading Recovery curriculum or because the students in the intervention group received special adult attention. Because the errors are so serious and the report is so misleading it should be immediately removed from your website and a statement regarding the errors prominently posted.

Our office has prepared a more extensive analysis of these concerns, including a comparison of the 2013 and 2008 reports and a comparison of the analyses of Reading Recovery with those of Reading Mastery. I have taken the liberty of attaching that analysis to this e-mail.

Please acknowledge receipt of my concerns and let me know the time line for your review and the removal of the report from the website.

Sincerely,

Jean Stockard, Ph.D.
Director of Research
National Institute for Direct Instruction
Eugene, Oregon
phone: 541-505-5710 or toll-free 877-485-1973

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From: What Works
Sent: Friday, September 20, 2013 9:09 AM
To: 'jstockard@nifdi.org'
Cc: 'Joy.Lesnick@ed.gov'
Subject: What Works Clearinghouse (QRT 2013001 and 2012012)
Attachments: QRT2013001 Response_9.19.2013.pdf

Dear Dr. Stockard,

Attached in the document entitled *QRT 2013001 Response_9.19.2013* is a response to your inquiries from July 28, 2013 into the What Works Clearinghouse review of Reading Mastery and Reading Recovery.

Thank you,

What Works Clearinghouse

The What Works Clearinghouse was established by the U.S. Department of Education's Institute of Education Sciences to provide educators, policymakers, researchers, and the public with a central and trusted source of scientific evidence of what works in education. For more information, please visit <http://ies.ed.gov/ncee/wwc/>.

What Works Clearinghouse **WWC**

A central and trusted source of scientific evidence for what works in education.

September 19, 2013

Dr. Jean Stockard
Director of Research
Office of Research and Evaluation
National Institute for Direct Instruction
jstockard@nifdi.org

Reference: QRT2013001, QRT2012012

Dear Dr. Stockard:

Thank you for your second inquiry concerning the What Works Clearinghouse (WWC) Intervention Report (IR) for *Reading Mastery* and your first inquiry concerning the WWC IR for *Reading Recovery*. These inquiries are based on an email request we received from you on July 28, 2013, along with an attachment titled, "The WWC Review Process: An Analysis of Errors in Two Recent Reports," coauthored by you and Timothy Wood. In your email and report, you (1) question WWC's conclusion of "no discernible effects on reading comprehension and potentially negative effects on alphabetic, reading fluency, and writing" regarding studies of *Reading Mastery* used with students with learning disabilities; (2) question WWC's conclusion of "positive effects on general reading achievement" regarding studies of *Reading Recovery* use with beginning readers; and (3) point out problems with the *Reading Recovery* and *Reading Mastery* reports in light of the WWC's review and reporting procedures. In response to your inquiry, the WWC quality review (QR) team has conducted an independent review to address your concerns about the two IRs published on our website. For each of the IRs, a researcher who was not involved with the preparation of the IRs—or any of the previous reviews—performed an independent assessment of the IRs and the studies in question. This includes an investigation into the procedures used and decisions made during the original reviews of the studies. These quality reviews are one of the tools used to ensure that the standards established by the Institute of Educational Sciences (IES) are upheld on every review conducted by the WWC.

Our responses to the issues you raise in your email, and in the report provided by you in the email attachment, are provided in two sections below. We first respond to issues raised about the *Reading Mastery* IR, and then we respond to issues raised about the *Reading Recovery* IR in a following section. Because the issues you raise are presented as an analysis, responses are first clarified by paraphrasing each concern in an enumerated list. We then respond to each of the listed concerns. Please note that the quality review team addresses issues raised about the applications of WWC standards and procedures and not about the standards and procedures themselves. Based on those guidelines, the quality reviewers did not address your comments about WWC procedures and processes that were included in your report. This is the second quality review that has been conducted for the *Reading Mastery* IR based on an initial request by you (see response QR2012012, dated November 2012), and some of those responses are reiterated here, as they address many of the concerns examined in this QR.

Response to Issues Raised About the *Reading Mastery* IR

The quality reviewer concluded that the procedures used and decisions made for the studies underlying the *Reading Mastery* IR correctly applied the standards established by the IES. At the same time, your inquiry raised a legitimate concern regarding the process of updating IRs that we address below.

Issue 1. Herrera et al. (1997) was rated as Meeting Standards in a previous version of the IR that was released in July 2012, but was found to be ineligible for review in the version that was re-released in July 2013, but with the same July 2012 date. You were concerned about this study's original rating of Meeting Standards, as well as the change in the disposition of the study with no explanation for why the change was made—even though the date of the IR has not changed.¹ The original disposition of Herrera et al. (1997) as Meeting Standards was a concern that you raised and the WWC addressed in the previous QR response (QR2012012, reply dated November 2012). Specifically, the previous quality review determined, and this quality reviewer confirmed, that Herrera et al. (1997) is ineligible for review because both intervention groups may have been taught using *Reading Mastery*. This decision was explained in detail in the original response to QR2012012.² However, the quality reviewer agreed with your concern that changing the disposition of the study for a re-released IR that has the same date as the original IR can be confusing. This

¹ In your July 2013 report (page 2), you also state, “The WWC subsequently removed the July 2012 report from its website,” with an accompanying footnote: “The NIFDI research staff assumes that the removal was in response to the concerns that they had submitted, but the research office was never notified that the removal had occurred or told of the reasons for the decision” (footnote 2, page 2). WWC’s response to you concerning your inquiry QR2012012 (sent to you November 2012, several months prior to the publication date of your report dated July 2013) clearly stated that it planned to remove the report and the reasons for removal: “In light of the findings of the quality review, the WWC intervention report on *Reading Mastery* for students with learning disabilities will be revised. The results from the Herrera et al. (1997) study will not be included in the evidence rating and the study will be listed as ineligible for review as it is not a test of *Reading Mastery*. The research summary and the description of the remaining study that meets standards will be revised to clearly note the comparison condition for the Cooke et al. (2004) study. Because the revisions affect the ratings, the intervention report will be removed from the WWC website until the revisions are complete, and the revised report will be posted” (page 2).

² In the November 2012 QR response, the quality review team noted that the Herrera et al. (1997) study does not explicitly state that both groups received *Reading Mastery* instruction, but, as you noted in your email initiating the quality review, this could be inferred from statements regarding the “usual and customary” curriculum for the school day (on page 78 of the study). The quality review noted that, during the original review process, the WWC queried the study authors regarding this issue but did not receive a response. The original review team interpreted the study to imply that the implicit method replaced the explicit method, which the authors describe as *Reading Mastery*. For example, the study notes that the implicit method was integrated without adding time to the school day, so some activity—the team assumed *Reading Mastery*—would have been replaced. However, the quality review concluded that both comparison groups might have received instruction using *Reading Mastery*.

confusion might be particularly relevant for those who have accessed the IR before and after the changes were made. Based on this, the quality reviewer suggested the inclusion of an endnote that would clarify any changes to the IR that were made as a result of a quality review team review. The endnote, which is indicated by an asterisk, will be positioned on the original publication date and will document when the changes were made, what changes were made, and what was not changed.

Issue 2. The WWC rated the Cooke et al. (2004) study based on a comparison of two versions of the Direct Instruction curriculum (*Reading Mastery Fast Cycle* versus *Horizons Fast Track*), instead of a comparison of *Reading Mastery* with results from a nationally normed test. You are concerned that the comparison used by the WWC is inappropriate because *Reading Mastery* is based on Direct Instruction, and reported results in the IR should be based on a comparison with a nationally normed test instead. These concerns were raised and addressed in the previous QR response (QR2012012). Specifically, the previous QR concluded, and this quality reviewer confirmed, that the comparison of student outcomes between those receiving the *Reading Mastery Fast Cycle* program against those receiving the *Horizons Fast Track* program are eligible for review based on the purpose and description of the intervention differences in the study. In response to your prior inquiry, our November 2012 QR response indicated that the research summary and the description of the Cooke et al. (2004) study would be revised to clearly note the comparison condition. These changes are now clearly reflected in the re-released IR. Specifically, the fact that both interventions are based on the Direct Instruction curriculum, and that they share features, is documented in the first paragraph of the “Research” section on page 1 and in the “Summary of study meeting WWC evidence standards without reservations” on page 4. As for the comparison of students receiving *Reading Mastery* against student averages from a normalized test score, the previous QR concluded, and this quality reviewer confirmed, that the IR was following WWC procedures in its decision. Specifically, a comparison with the normalized test scores does not allow for the establishment of baseline equivalence, which is a requirement of WWC standards for quasi-experimental designs.

Issue 3. You are concerned that the WWC did not include more studies in the IR based on the citations in “Reading Mastery and Learning Disabled Students: A Comment on the What Works Clearinghouse Review.” You also highlighted the works of Gunn et al. (2000, 2002, and 2005) and Kamps et al. (2003) as examples of studies that you believe should have been included. This concern was raised and partially addressed in the previous QR response (QR2012012). The previous QR determined that the studies cited in the submitted document were appropriately omitted from the WWC intervention report because they were ineligible for review under the [Evidence Review Protocol for K-12 Students with Learning Disabilities version 2.1](#). This quality reviewer confirmed that those decisions were appropriate. Further, the quality reviewer for this request concluded that the cited Gunn et al. and Kamps et al. studies were also appropriately omitted from the IR because they do not attempt to focus on a learning disabled student population. Specifically, one of the inclusion criteria used for all of the Gunn et al. studies was that students score below their grade-level equivalent. This is not sufficient to establish included students as having learning disabilities. The Kamps et al. study also categorizes students based on “risk status,” but again, the focus is not

on students with learning disabilities. Therefore, the exclusion of studies from this IR in the Learning Disabled topic area is appropriate.

Response to Issues Raised About the *Reading Recovery* IR

The quality review found that the procedures used and decisions made for the studies in the *Reading Recovery* IR correctly followed the standards established by the IES.

Issue 1. There were two studies included in the 2008 IR report that were excluded from the summary of findings in the updated 2013 IR report. You were concerned about why they were excluded and why no explanation for their exclusion was provided. The WWC updates evidence standards and review protocols periodically. The updates ensure that evidence standards and review protocols incorporate advances in the area of evaluation research and the topic of the particular review. The original *Reading Recovery* report, released December 2008, used [WWC Evidence Standards, version 1.0](#) (May 2008) and the [Beginning Reading Protocol, version 1.0](#) (September 2006). The 2013 updated *Reading Recovery* report uses [WWC Evidence Standards, version 2.1](#) (September 2011) and the [Beginning Reading Protocol, version 2.1](#) (August 2012), as documented in the updated report endnote 2 (p. 34). All studies in the updated IR were reviewed against these more current standards, and the disposition change for both Baenen et al. (1997) and Iverson and Tunmer (1993) from the latest *Reading Recovery* report are based on this re-review.

The change in disposition for the Baenen et al. (1997) study between the 2008 *Reading Recovery* IR and the updated 2013 IR is based on changes in the WWC evidence standards. Specifically, in the 2008 IR, Baenen et al. (1997) was rated as a randomized controlled trial (RCT) that “Meets Evidence Standards.” However, in the updated review, the WWC rated each of the two cohorts that were eligible for review separately. The 1991-1992 cohort was reviewed as a quasi-experimental design and was rated “Does Not Meet Standards” in the 2013 report because the analytic intervention and comparison groups are not shown to be equivalent at baseline (please see the study disposition on p. 7 and endnote 2 on p. 34 of the 2013 report). The 1990-1991 cohort was reviewed as an RCT and was rated “Does Not Meet Evidence Standards” in the updated 2013 report due to standards related to attrition. Specifically, the WWC revised the attrition standard in 2008. The 2013 review of the study found there was high attrition for the analysis of the North Carolina End-of-Grade outcome.³ Analyses from RCTs with high attrition are required to demonstrate baseline equivalence, which was not demonstrated for the analytical intervention and comparison groups (please see pp. 29-36 in the WWC Evidence Standards, version 2.1 for a discussion of attrition and equivalence).

The reference list includes a single disposition for the Baenen et al. (1997) study because the rating is the same for both reviewable cohorts: “Does Not Meet Evidence Standards.” To ensure

³ Note that the 2008 IR also focused on grade retention as an outcome for this cohort at the end of first grade. However, in collaboration with an external content expert, the grade retention outcome was determined to be ineligible for review in the revision of the Beginning Reading Protocol.

continuity with the 2008 report, the QR team recommends that the WWC revise the study disposition to reflect the RCT portion of the study: “The study does not meet WWC evidence standards because it is a randomized controlled trial in which the combination of overall and differential attrition rates exceeds WWC standards for this area, and the subsequent analytic intervention and comparison groups are not shown to be equivalent.”

The revised study disposition for Iverson and Tunmer (1993) is due to a change in the WWC Evidence Standards. Under Version 2.1 standards, if the difference is greater than 25 percent of the pooled standard deviation, the study is rated “Does Not Meet Evidence Standards,” irrespective of any statistical adjustment for baseline differences. If the difference is between 5 percent and 25 percent of the pooled standard deviation, the authors must report an analysis that controls for baseline differences. The WWC calculated the baseline difference between the analytic intervention and the comparison groups in Iverson and Tunmer (1993) as larger than 25 percent of the pooled standard deviation. This resulted in the study being rated “Does Not Meet Evidence Standards” because it uses a quasi-experimental design in which the analytic intervention and comparison groups are not shown to be equivalent (see p. 10 of the 2013 report).

Issue 2: You indicated that all of the interventions in the three included studies are implemented in the context of additional changes, such as extra class time, or mode of instruction. For example, in both of the Pinnell et al. (1988, 1994) studies, the intervention was implemented one-on-one, whereas the comparison group received their supplemental instruction in a group setting. In the Schwartz (2005) study, the intervention group received additional supplemental support, whereas the comparison group did not. Based on these differences in how the interventions were implemented, you expressed concern that these studies do not represent a test of the intervention of interest that is free from “confounds.” The quality review found that the original reviews followed WWC procedures by properly rating the studies and clearly describing the intervention and contrasts in the IR. The WWC does not consider the highlighted aspects of implementing the program to be confounds because they are part of the definition of the intervention. As you note, on page 1 of the IR, *Reading Recovery* is defined as a supplemental program that is implemented one-on-one, making both the supplementary nature and the mode of delivery an integral part of the intervention. Further, the contrasting services for the comparison groups in each of the three studies are described in the section on “Summary of studies meeting WWC evidence standards without reservations” on page 3, as well as on pages 24, 25, and 27. The WWC relies on these descriptions in the IR to clarify the contrasts presented in each of the studies. Based on these descriptions, it is clear that the Pinnell et al. studies are comparing two supplementary services, whereas the Schwartz et al. study is testing the *Reading Recovery* intervention as a supplement to business-as-usual practices.

Conclusion

Based on the findings and recommendation of the quality review, we will be revising the *Reading Mastery* IR to include an explanation for the change in study disposition for the Herrera et al. (1997) study between the original July 2012 release and the July 2013 re-release. We will also be revising the *Reading Recovery* IR to clarify the study disposition for Baenen et al. (1997).

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I hope that this letter has addressed your concerns. If you have other concerns, please do not hesitate to contact the WWC through info@whatworks.ed.gov.

Sincerely,

(b)(6)

Jill Constantine
Director, What Works Clearinghouse

cc: (b)(6)