

Reviews of Collections of Programs, Curricula, Practices, Policies, and Tools: Evaluated According to Evidence

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This collection originated as part of the Results for Kids: Resources library of The IDEA Partnership, which transferred early contents to NIRN in 2009.

Response to Intervention and Progress Monitoring

A Summary of Nine Key Studies: Multi-Tier Intervention and Response to Intervention for Students Struggling in Mathematics

Center on Instruction, RMC Research Corporation, Portsmouth, New Hampshire. (2009).

R. Newman, Gonchar, B. Clarke, & R. Gersten.

"This summary of nine studies provides information about evidence-based practices for Tier 2 interventions and how to use Response to Intervention (RTI) in mathematics. . . . (The authors) conducted a literature search in EBSCO Information Services, First Search, and PSYCHINFO databases. . . . To be included in the final bibliography, a study had to meet three criteria . . . (a) a defined screening process to identify students in need of intervention; (b) the delivery of a tier 2 intervention; and (c) a procedure to monitor student response to intervention. . . . (The authors) subdivided this report into several groups of studies based on their themes. Those studies that examined the effectiveness or efficacy of Tier 2 interventions for first, second, and third graders are reported first. The studies that examined the overall impact of RTI on achievement are reported next, followed by those that assessed the use of RTI as a method for preventing and identifying mathematics difficulties. Several studies reported results on more than one theme; their results were separated and reported under the appropriate theme."

[Full text -- A Summary of Nine Key Studies](#)

Annotated Bibliography of Selected Curriculum-Based Measurement and Student Progress Monitoring Articles Published in 2004-2006

National Center on Student Progress Monitoring, American Institutes for Research, Washington DC. (2006).

"As curriculum-based measurement (CBM) and student progress monitoring (SPM) are increasingly implemented in schools, research continues in an effort to improve and expand the practice. Current research seeks to answer questions such as: (a) What is the best way to implement CBM and SPM? (b) What kind of support do teachers need to use CBM and SPM effectively? (c) How should we use CBM and SPM data? and (d) Can CBM be used beyond reading and mathematics or elementary school? This bibliography contains studies published between 2004 and 2006 that answer some of these questions. It is organized by subtopic to help users find articles that answer their own questions."

[Access the annotated bibliography](#)

[Click on Annotated Bibliography of Selected Curriculum-Based Measurement Articles: 2006 Update]

Assisting Students Struggling with Mathematics: Response to Intervention (RtI) for Elementary and Middle Schools -- IES Practice Guide

Institute of Education Sciences, U.S. Department of Education. (2009).

R. Gersten (Panel Chair), S. Beckmann, B. Clarke, A. Foegen, L. Marsh, J. R. Star, & B. Witzel.

"This guide provides eight specific recommendations intended to help teachers, principals, and school administrators use Response to Intervention (RtI) to identify students who need assistance in mathematics and to address the needs of these students through focused interventions. . . . The body of evidence the panel considered in developing these recommendations included evaluations of mathematics interventions for low-performing students and students with disabilities. The panel considered high-quality experimental and quasi-experimental studies, such as those meeting the criteria of the What Works Clearinghouse to provide the strongest evidence of effectiveness. . . . Each recommendation receives a rating based on the strength of the research evidence that has shown its effectiveness."

[Full text -- Assisting Students Struggling with Mathematics](#)

[Also see -- Doing What Works: RTI in Elementary-Middle Math](#)

Assisting Students Struggling with Reading: Response to Intervention (RtI) and Multi-Tier Intervention in the Primary Grades -- IES Practice Guide

Institute of Education Sciences, U.S. Department of Education. (2009).

R. Gersten (Panel Chair), D. Compton, C. M. Connor, J. Dimino, L. Santoro, S. Linan-Thompson, & W. D. Tilly.

"This guide offers five specific recommendations to help educators identify struggling readers and implement evidence-based strategies to promote their reading achievement. Teachers and reading specialists can utilize these strategies to implement RtI and multi-tier intervention methods and frameworks at the classroom or school level. Recommendations cover how to screen students for reading problems, design a multi-tier intervention program, adjust instruction to help struggling readers, and monitor student progress. . . . The recommendations reflect not only the panel's expertise and experience but also the findings of rigorous studies of interventions to promote reading achievement. Each recommendation received a rating that describes the strength of the research evidence that has shown its effectiveness."

[Full text -- Assisting Students Struggling with Reading](#)

[Also see -- Doing What Works: RTI in Primary Grade Reading](#)

Curriculum-Based Measurement in Mathematics: An Evidence-Based Formative Assessment Procedure

Center on Instruction, RMC Research Corporation, Portsmouth, New Hampshire. (2007).

E. S. Lembke & P. M. Stecker.

"This report describes M-CBM (Mathematics Curriculum-based Measurement) including a brief history, basic procedures, implications for practice, and further resources. It also reviews the research that

supports the use of M-CBM. . . . This document supports using progress monitoring to improve student achievement in mathematics for implementation of School Improvement Grant requirements. The Center on Instruction hosted a webinar in November 2007 in which authors Erica Lemke and Pam Stecker discussed this report, along with another newly released resource. The WebEx archive and PowerPoint presentation are also available” on this page.

[Full text -- CBM in Mathematics](#)

Empirical Articles on Response to Intervention

Recognition and Response, FPG Child Development Institute, University of NC, Chapel Hill. (2006).
M. R. Coleman, V. Buysse, & J. Neitzel.

"Researchers at the Frank Porter Graham Child Development Institute conducted a literature review to identify articles that address features of Response to Intervention (RTI) in school-aged populations. The 14 empirical articles on this page were included in a research synthesis, and served as the research base regarding the efficacy of RTI." Click on the citations to access details about each article, including background information, purpose, population, research design and results.

[Abstracts -- Empirical Articles on Response to Intervention](#)

[Click on each underlined title for its abstract]

Extensive Reading Interventions in Grades K-3: From Research to Practice (with implications for RTI)

Center on Instruction, RMC Research Corporation, Portsmouth, New Hampshire. (2007).
N. Scammacca, S. Vaughn, G. Roberts, J. Wanzek, & J. K. Torgesen.

"Within the RTI model, many students who are at risk for reading problems or disabilities may require extensive interventions. In fact, questions about the required duration or intensity of preventive interventions for young students are among the important unresolved questions related to implementing the RTI model. At present, there is insufficient research to provide clear guidance about the duration or intensity of interventions that might be required for individual students. However, by acquiring information about the average effects of interventions of varying lengths, schools may begin to develop a deeper understanding of the characteristics of interventions they will need to provide to achieve their goals in preventing early reading difficulties. . . . This document reports the effects of extensive reading interventions on younger students struggling to read. It summarizes the methods and results of studies published between 1995 and 2005 that delivered 100 or more sessions of intervention." Findings are discussed in terms of implications for practice in an RTI setting.

[Full text -- Extensive Reading Interventions in Grades K-3](#)

Factors Related to Successful RTI Implementation

Communique Online. (2011). National Association of School Psychologists, Bethesda, Maryland.
J. E. Harlacher & C. E. Siler.

"To identify a set of factors that affect RTI implementation, articles that described implementation efforts were gathered by searching the literature using keywords related to RTI (e.g., RTI implementation, lessons learned, factors affecting implementation, etc.). This review was not an exhaustive one, but it provided a starting point in the literature on RTI implementation. If the article specifically identified factors or lessons learned from implementation, as opposed to being a conceptual

paper, it was retained for analysis. A list of factors related to implementation was created after reviewing the references obtained. . . . After the list of factors was identified, the percentage of references that mentioned a particular factor was calculated. A total of 13 factors were identified across 20 total references. The most common factors identified were professional development and staff buy-in, as 55% and 50%, respectively, of the references reported these factors as important to implementation. Leadership, time for collaboration, and broad ownership were the next 3 most commonly reported factors.”

[Full text – Factors Related to Successful RTI Implementation](#)

Field Studies of RTI Programs, Revised

RTI Action Network, Washington DC. (Circa 2010). C. Hughes & D. D. Dexter.

The authors “present a review of published studies on the effectiveness of different RTI models. These studies, often referred to as field studies, are examinations of the impact of multi-tier and multi-component RTI models. . . . Descriptions of the research designs used in the studies as well as a brief description of their level of rigor are presented in Figure 1. . . . Each of the 16 RTI programs included in this review can be classified as either a *problem-solving* or *standard protocol* model as well as an *existing* or a *researcher-developed* model. A problem-solving model uses individually tailored interventions designed to address student failure to adequately respond to instruction, and these interventions are typically developed or selected through a team-based decision process. The standard protocol model refers to the use of preselected interventions that are used when personnel deem that the existing intervention has not led to the desired response by the student.” Table 1 is a list of the studies -- click on the author(s) for an overview of each one. The acronyms for these programs are spelled out at the bottom of Table 1.

[Full text – Field Studies of RTI Programs, Revised](#)

Progress Monitoring Tools Chart (for intensive intervention)

National Center on Intensive Intervention, American Institutes for Research, Washington DC. (2012).

“The National Center on Intensive Intervention defines progress monitoring as repeated measurement of academic performance for the purpose of helping schools individualize instructional programs for students in grades K-12 who have intensive instructional needs. For this purpose, progress monitoring is collected weekly to assess whether student progress is adequate to meet the student’s instructional goal. If not, the teacher adjusts the instructional program to better meet the student’s needs and continues to monitor progress. This process recurs throughout intervention to formatively develop an effective, individually tailored instructional program. . . . This chart represents the results of an annual review of academic progress monitoring tools by the Center’s Technical Review Committee. The chart provides ratings on the technical adequacy of commercially available academic progress monitoring tools that can be used as part of a data-based individualization program for educating students with disabilities who require intensive intervention due to persistent learning problems. The tools were rated against standards of general outcome measures, or mastery measures. Additional information on how to implement the tools can be found on the chart as well.” The ratings assigned to the tools are explained below the chart: (a) convincing evidence; (b) partially convincing evidence; (c) unconvincing evidence; (d) data unavailable.

[To access the Academic Progress Monitoring Tools Chart \(for intensive intervention\)](#)

[Click on the name of each tool for details]

[Also see – Academic Intervention Tools Chart \(for intensive intervention\)](#)

Progress Monitoring Tools Chart (for RTI)

National Center on Response to Intervention, American Institutes for Research, Washington DC. (Annual Reviews).

"The National Center on Response to Intervention defines progress monitoring as repeated measurement of academic performance to inform instruction of individual students in general and special education in grades K-8. It is conducted at least monthly to (a) estimate rates of improvement, (b) identify students who are not demonstrating adequate progress, and/or (c) compare the efficacy of different forms of instruction to design more effective, individualized instruction. . . . The tools chart reflects the results of the current annual review of reading and math progress monitoring tools by the Center's Technical Review Committee (TRC). . . . The tools in this chart have been rated against one or both sets of technical adequacy standards related to progress monitoring: General Outcome Measures (GOMs) and Mastery Measures (MMs). . . . Across the top of the chart are the standards by which the TRC reviews each tool. Click on each standard for a detailed description of how the rating was defined." Reliability, validity, and other standards are represented. The rating symbols are defined at the bottom of the chart: (a) convincing evidence, (b) partially convincing evidence, (c) unconvincing evidence, (d) data unavailable or inaccurate.

[Review the Progress Monitoring Tools](#) (for RTI)

[Also see – Instructional Intervention Tools](#) (for RTI)

Response to Intervention Research: Is the Sum of the Parts as Great as the Whole?

In *Perspectives on Language and Literacy*, Vol. 36, No. 2 (Spring 2010). M. Burns.
Distributed by the RTI Action Network, Washington DC.

"The purpose of this article is to describe the core components of RTI and the relatively limited research on RTI models in their entirety. Although RTI has many core components (e.g., data-based decision making, collaboration, and problem analysis), the focus of this article is research that addresses Tier 1 (quality core instruction), Tier 2 (supplemental intervention), and Tier 3 (individualized interventions). Moreover, this article will identify and discuss relevant meta-analytic research for these topics."

[Full text – Response to Intervention Research](#)

Response to Intervention: Research for Practice

National Association of State Directors of Special Education, Alexandria, Virginia. (2007).
A-J. Griffiths, L. B. Parson, M. K. Burns, A. VanDerHeyden, & W. D. Tilly.

"Although the authors attempted to provide a comprehensive resource for both traditional approaches and RtI, their primary objective was to respond to concerns about the lack of a research base for RtI. They begin by reporting studies that represent the decades of research that identify problems with the traditional learning disability diagnostic approaches. They then categorize RtI research into the three

areas of (a) service delivery, (b) implementation, and (c) assessment. Finally, to advance the RTI research agenda, they identify articles that suggest areas of legitimate concern regarding RTI."

[To download or order the book – Rtl: Research for Practice](#)

[Click at the bottom of the 3rd paragraph]

RTI and Disproportionate Representation: An Annotated Bibliography

National Center on Response to Intervention, American Institutes for Research, Washington DC. (2009).

"This annotated bibliography outlines citations for key articles for understanding disproportionate representation. For ease of use, the bibliography is categorized into three sections: (a) practitioner-oriented, (b) practitioners who want to learn more, and (c) research-oriented. The practitioner-oriented category is mainly composed of articles that are simple and practical. The category entitled 'Practitioners Who Want to Learn More' is for those who want more detailed information about disproportionality. While the majority of the articles are research-based, the Research-Oriented category has more articles that focus on the technical and conceptual aspects of disproportionality. You can click on each citation or click 'Open All' at the top of the page to see a brief description for each of the articles."

NOTE: Although aspects of Response to Intervention are included in this collection, the majority of citations focus on diversity and on disproportionate representation in special education.

[To access the bibliography](#)

Screening Tools Chart

National Center on Response to Intervention, American Institutes for Research, Washington DC. (Annual Reviews).

The National Center on Response to Intervention defines screening as follows: "Screening involves brief assessments that are valid, reliable, and evidence-based. They are conducted with all students or targeted groups of students to identify students who are at risk of academic failure and, therefore, likely to need additional or alternative forms of instruction to supplement the conventional general education approach. . . . The National Center on RTI publishes this tools chart to assist educators and families in becoming informed consumers who can select screening tools that best meet their individual needs. The Center's Technical Review Committee (TRC) on Screening independently established a set of criteria for evaluating the scientific rigor of screening tools. The TRC rated each submitted tool against these criteria but did not compare it to other tools on the chart." Among the characteristics rated on the chart are (a) classification accuracy; (b) generalizability; (c) reliability; (d) validity; (e) disaggregated reliability, validity, and classification data for diverse populations; and (f) efficiency. Rating scales are defined under the chart – convincing evidence; partially convincing evidence; unconvincing evidence; data unavailable or inadequate.

[Screening Tools Chart](#)

Universal Screening Within a Response-to-Intervention Model

RTI Action Network, Washington DC. (Circa 2008). C. Hughes & D. D. Dexter.

This resource "is based on a research review of RTI programs ('Field Studies of RTI Programs'). The goal of this article is to assist the reader in making informed decisions about the nature of universal screening measures. To that end, the article is divided into the following sections: (a) What is universal screening?

(b) What are the elements of effective universal screening measures? (c) What are some common universal screening measures? (d) What types of performance are measured? (e) What universal screening measures were used in the RTI models in our research review for the RTI Action Network? (f) How is at-risk status defined? (g) When does Tier 2 begin? and (h) Conclusions and directions for future research." Table 1 shows a list of programmatic field studies of RTI. Click on the authors to access each study. The full name of each model shown on the table is spelled out below the table.

[Full text – Universal Screening Within a Response-to-Intervention Model](#)

Using Assessments for Instructional Improvement: A Literature Review

Education Policy Analysis Archives. (2010). V. M. Young & D. H. Kim.

“The current educational reform policy discourse takes for granted the central role of using data to improve instruction. Yet whether and how data inform instruction depends on teachers’ assessment practices, the data that are relevant and useful to them, the data they typically have access to, and their content and pedagogical knowledge. Moreover, when one considers teachers’ organizational contexts, it is clear that school leadership and support for using data, capacity-building strategies, and the norms of adult learning and collaboration circumscribe opportunities to examine relevant data and to improve instructional practice in response. This literature review examines teacher practices as well as organizational practices and characteristics as they pertain to formative uses of assessment. (The authors) identify opportunities for important research to illuminate how and under what conditions teachers and schools as organizations can use data to inform instruction.”

[Full text – Using Assessments for Instructional Improvement](#)

Using Formative Assessment to Improve Student Achievement in the Core Content Areas

Southeast Comprehensive Center, SEDL, Austin, Texas. (2012). R. Madison-Harris & A. Muoneke.

“To identify literature for studies on formative assessment, staff at the Southeast Comprehensive Center conducted searches of the Assessment & Accountability Comprehensive Center Web site, EBSCO’s Academic Search Elite database, the Education Resources Information Center (ERIC), and online search engines (i.e., Google, Google Scholar, Bing, and Yahoo). They used combinations of terms that included formative assessment, formative assessment and English learners, formative assessment and students with disabilities, formative assessment research, formative assessment principles, formative assessment policies, and learning progressions. The literature searches focused on research completed within the last 10 years. When reference lists were reviewed, staff found that some older research provided key information on the topic, so these publications were included in the resources that were used to develop this paper. In addition, SECC staff contacted the states served by SEDL’s Southeast and Texas Comprehensive Centers—Alabama, Georgia, Louisiana, Mississippi, South Carolina, and Texas—to highlight state work in this area.”

[Full text—Using Formative Assessment to Improve Student Achievement](#)



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