

Maximize Your Technology Investments

Translate research on the use of technology in education into practice with the Metiri Group's *Technology Solutions that Work (TSW)*. It puts research at educators' fingertips by providing in-depth, unbiased analyses of research on the impact of technology solutions and software on learning. The database grew out of the tremendous interest of schools in Metiri's presentations on what the research said about the effectiveness of technology-based learning solutions. The database began with a focus on early literacy. Today not only has the database been updated to include adolescent literacy, middle school/high school mathematics interventions have been added. The product is unique in its summary analysis of available research studies for specific technology-based interventions.

Today's teachers and administrators are under the tremendous pressure of high stakes assessment to get academic achievement results. This pressure, combined with recent reductions in most school budgets, requires that schools become more analytic and informed as consumers and investors in technology resources. The TSW is an up-to-date resource schools can count on to:

- Identify technology solutions that increase learning, especially with students who are underachieving
- Guide school investments in software, online resources, or other technology resources related to learning
- Provide sound, unbiased advice on the validity of the research presented to you by vendors marketing their "scientifically-based" products

For an in-depth presentation on how to use TSW see a Metiri slide show, see: [tips and techniques](#) on www.metiri.com/techsolutions.

TSW Behind the Scenes Analysis

The review process that serves as the foundation of the Metiri TSW (Technology Solutions That Work) database involves a team of educators, researchers, and Metiri partners. See http://www.metiri.com/our_staff.html.

The TSW provides reviews of two types of research related to TSW-reviewed interventions. First and foremost, it offers critical reviews of impact studies (experimental, quasi-experimental, and correlational) on specific technology learning solutions. Metiri has established a rubric its research analysts use to rate the rigor and validity of the study. These rubrics align both with Campbell and Cooks decisive work on "Threats to Validity" as well as with the "Study Design and Implementation Assessment Device" from the Department of Education's "What Works Clearinghouse."

Metiri provides a confidence level based on research analysts application of the rubrics. The rubric includes analysis of eleven criteria including: type of research (e.g., experimental, quasi-experimental, correlational), control of confounds (e.g., alternate explanations), fidelity of

implementation, validity and reliability of measures, adequacy of sample size, generalizability to U.S. schools, replication of findings, sensibility of findings, independent research, publication and peer review, and the quality of the statistics.

The Metiri confidence level provides a reliable indicator for schools to look to as they decide if a study merits their attention (e.g., yellow, green, and aqua).



Once all available studies are reviewed, the Metiri team then writes an analysis summarizing results from all studies and applies a second rubric to slot the learning solution into one of the following categories:

What Works	New & Promising	Inconclusive	Can't Recommend
Metiri analysis indicates that reliable impact studies (or at least one strong study) find that the intervention increases student learning significantly beyond controls – in alignment with the product marketing.	Metiri analysis finds that the intervention has merit due to the theoretical research underpinnings no research on impact is available yet, and the intervention has strong expert support or some early trials exhibiting positive trends or correlations.	Metiri’s analysis of related research and expert analysis indicates inconsistent and conflicting findings.	Metiri finds that the intervention either has at least one reliable research study indicating it does not increase student learning significantly, as marketed; or no reliable impact studies are available and it doesn’t meet the criteria for promising.

NOTE: in February the New and Promising category is being changed to Promising.

As new studies are released, Metiri research analysts review and establish confidence levels for them, add them to the database, and change the categorization if it is warranted.

A second type of analysis is conducted to analyze the research basis for the development of the software, or learning strategy. This provides educators with further insights into the products or learning strategies, and is especially important in the review when the product or learning strategy has few associated impact studies. A limitation of this type of review is the availability of such information from the developers or vendors.

Once the reviews are completed, the intervention is added to the database, offering the user a completed description, implementation requirements, and, of course, the related research.

- Description
- Implementation
- Related Research

Waterford Early Reading Program

Research Summary

The Waterford reading program has been the subject of a large number of research studies and program evaluations. In terms of scientifically-based research, three or four major studies meet even the Department of Education's most stringent requirements. One of these studies, (Hecht and Close, 2002) was particularly well-constructed and convincing. This study is supported by a host of positive program evaluations (see for example, Young and Tracy, 1998) that are moderately well-constructed. While... [More](#)

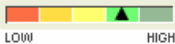
Related Research

Study: [Waterford -- Hecht and Close, 2002](#)

Over the course of six months, Kindergarteners were assigned at



As indicated in the screen shot of the review of the Waterford Early Reading Program, the related research section provides the user with a Research Summary across studies and a Metiri Confidence Level and an in-depth analysis of the studies.

<p>Description</p> <p>Implementation</p> <p>Related Research</p>	<p>Waterford Early Reading Program Waterford -- Hecht and Close, 2002</p> <p>Abstract</p> <p>Over the course of six months, Kindergarteners were assigned at random to either receive regular classroom instruction, or regular instruction supplemented by the Waterford Early Reading Program. Children assigned to the Waterford treatment used the software over the course of the six months for approximately 21.5 hours. All students were pre-tested and post-tested on a battery of phonemic awareness and spelling assessments. The research posed three questions... More</p>	<p>Metiri Confidence Level</p>  <p>Citation: Hecht, S. A. and Close, L. (Jan. 31, 2002). "Emergent literacy skills and training time uniquely predict variability in responses to phonemic awareness training in disadvantaged kindergartners." <i>Journal of Experimental Child Psychology</i>, Vol. 82: pp. 93-115.</p>
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The *Technology Solutions That Work* (TSW) Database is a consumers' guide on technology interventions for educators. It puts summaries of research at educators' fingertips as it provides an in-depth, unbiased analysis of each study, and a summary of all the research related to each software product or technology-based learning solution.

Educators across the country are tapping into its resources to increase their awareness of the research base and to maintain a high level of confidence that they are investing wisely as they acquire technology resources. For a licensing agreement, see: <http://www.metiri.com/>.

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METIRI Group Technology Solutions That Work

Technology Solutions that Work (TSW)

A Research-based Decision-making Tool for Schools

Are you grappling with how to get a return on your technology investment—a return in higher student performance? Do you want to inform your decision-making about technology with sound, reliable research? Are you finding it difficult to locate research aligned to your interests, and even more difficult to know which research findings are valid and significant, and which are not?

To help address these issues, **EduTech Education Technology Services** has recently purchased Metiri Group's Technology Solutions that Work (TSW) database. This database puts research on literacy, mathematics, and technology at your fingertips. You can review detailed analyses of technology-based learning solutions and software, along with a summary of associated research studies. Tap into TSW to determine which research findings to factor into your school's investment in technology, and increase your confidence that you are investing your technology resources wisely.

Directions:

Step 1: Access the site at:

<http://www.metiri.com/techsolutions>

Step 2: In the Group Token box type the token: **C38-ND-EETS**

Step 3: Register as a user, selecting the username and password that you will use from now on. Once you click Submit at the bottom of the form you will be a registered user.

Write both down for easy access later!

The screenshot shows the website's navigation menu with tabs: What Works, New & Promising, Inconclusive, Can't Recommend, Background, and About Metiri. A search bar is located in the top right. Below the navigation is a quote: "Bringing you comprehensive analyses of what the research says works and doesn't work with technology in schools". The main content area is divided into two columns. The left column contains a login form with fields for Username and Password, and a Login button. Below the login form is a section for "New Users with a token" with a Group Token field and an Establish Login button. Further down is an "Other users" section with a note about contacting Kirk Vandersall. The right column contains a large text block with a question about getting a return on technology investments and a link to "Tap into its resources".

The screenshot shows the registration form on the website. It includes a search bar and navigation tabs at the top. The main content area is titled "About Your Group" and contains the following information: Organization: IDOE (1 of 3), Brief Description: State of Indiana, Administrative Contact: Carolyn White, Coordinator, INEXT, Valid from 3/1/2004 to 6/30/2005. Below this is the "About You" section, which contains a registration form with fields for Username, Password, Confirm Password, Organization, First Name, Last Name, and Role (e.g., Teacher, Principal, etc.).