WWC Intervention Report

U.S. DEPARTMENT OF EDUCATION

What Works Clearinghouse

Middle School Math

• Ies Institute OF FDUCATION SCIENCES

Destination Math

Effectiveness

No studies of Destination Math that fall within the scope of the Middle School Math review protocol meet What Works Clearinghouse (WWC) evidence standards. The lack of studies meeting WWC evidence standards means that, at this time, the WWC is unable to draw any conclusions based on research about the effectiveness or ineffectiveness of Destination Math.

Program Description¹

Destination Math is a series of computer-based curricula designed to be used for at least 90 minutes a week. Featuring sequenced, prescriptive, step-by-step instruction, Destination *Math* is designed for the development of fluency in critical skills, math reasoning, conceptual understanding, and problem-solving skills. Intermediate Math (grades 4-6), Advanced Math (6-8), Pre-Algebra (6-8), and Algebra (9-12) are available for middle school students.²

The WWC identified 11 studies of Destination Math that were published or released between 1983 and 2008.

One study is within the scope of the review and has an eligible design but does not meet WWC evidence standards. The study does not establish that the comparison group was comparable to the treatment group prior to the start of the intervention.

Six studies are out of the scope of the review because they have an ineligible study design that does not meet WWC

evidence standards; specifically, the studies do not include a comparison group.

Four studies are out of the scope of the review, as defined by the Middle School Math protocol, for reasons other than study design.

1. The descriptive information for this program was obtained from publicly available sources: the program's website (http://web.riverdeep.net/portal/ page?_pageid=818,1381089&_dad=portal&_schema, downloaded January 2009) and http://wvde.state.wv.us (downloaded January 2009). The WWC requests developers to review the program description sections for accuracy from their perspective. Further verification of the accuracy of the descriptive information for this program is beyond the scope of this review.

2. This review refers to studies of Destination Math in middle school or junior high school. Studies of Destination Math conducted in elementary school or high school were out of the scope of the Middle School Math protocol.

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References Studies that fall outside the Middle School Math protocol or do not meet evidence standards

- Eaton, C. (2005). Sparking a revolution in teaching and learning. *T.H.E. Journal, 33*(1), 20–23. The study is ineligible for review because it does not use a sample within the age or grade range specified in the protocol.
- FitzPatrick, S. B. (2001). An exploratory study of the implementation of an educational technology in two eighth grade mathematics classes. *Dissertation Abstracts International, 62*(06), 2082A. (UMI No. 3016656) The study is ineligible for review because it does not examine the effectiveness of an intervention.
- Houghton Mifflin Learning Technology. (n.d.). *Destination Math:* White paper and research. Retrieved April 15, 2008, from http://www.hmlt.hmco.com/downloads/Whitepapers/Destination_Math_WP.pdf. The study is ineligible for review because it does not use a comparison group.
- Interactive Educational Systems Design. (2007). *Research on the NYC SIFE*-Destination Math *program*. New York, NY: Author. The study is ineligible for review because it does not use a comparison group.
- Levenson, T., & De Long-Cotty, B. (2006). The impact of Destination Math on fifth grade mathematics skills: Final report. Boston, MA: Riverdeep, Inc. The study is ineligible for review because it does not use a sample within the age or grade range specified in the protocol.
- Riverdeep, Inc. (2001). Analysis of state math test scores of Pender County (NC) middle school students. Unpublished report. (Available from Riverdeep, Inc., 100 Pine Street, Suite 1900, San Francisco, CA 94111). The study is ineligible for review because it does not use a comparison group.

Additional source:

Riverdeep, Inc. (2003d). Destination Math: *Validation studies.* San Francisco, CA: Author. (Study: Pender County School District, North Carolina).

- Riverdeep, Inc. (2003a). Destination Math: *Validation studies.* San Francisco, CA: Author. (Study: Chipman Junior High School, Bakersfield, California). The study does not meet evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.
- Riverdeep, Inc. (2003b). Destination Math: *Validation studies*. San Francisco, CA: Author. (Study: Highwood Hills Elementary School, St. Paul, Minnesota, and Charlotte Middle School, Rochester, New York). The study is ineligible for review because it does not use a comparison group.
- Riverdeep, Inc. (2003c). Destination Math: *Validation studies*. San Francisco, CA: Author. (Study: Mitchell High School, Colorado Springs, Colorado). The study is ineligible for review because it does not use a comparison group.
- Rivet, J. R. (2001). Student achievement in middle school mathematics: Computer assisted instruction versus traditional instruction. *Dissertation Abstracts International*, 63(09), 3164A. (UMI No. 3065841) The study is ineligible for review because it does not examine an intervention implemented in a way that falls within the scope of the review protocol.

Additional sources:

- Riverdeep, Inc. (2002). *Comparison study of* Destination Math *conducted in middle schools in Desert Sands (CA)*. (Available from Riverdeep, Inc., 100 Pine Street, Suite 1900, San Francisco, CA 94111).
- Riverdeep, Inc. (2003e). Destination Math: *Validation studies*. San Francisco, CA: Author. (Study: Desert Sands Unified School District, California).
- Taepke, P. A. (2007). Effect of computer-aided instruction on grades in middle school algebra. Unpublished doctoral dissertation, University of San Diego, San Diego, CA. The study is ineligible for review because it does not use a comparison group.