

# What Works Clearinghouse



## Kumon Math

**Effectiveness** No studies of *Kumon Math* that fall within the scope of the Elementary 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 *Kumon Math*.

### Program Description<sup>1</sup>

*Kumon Math*, published by Kumon North America, Inc., is a supplemental mathematics curriculum for students in preschool through secondary school.<sup>2</sup> The curriculum is not structured by age or grade level, but by a student's own pace, and is composed of hundreds of short assignments that progress through increasingly difficult mathematics skills. Students complete

one assignment every weekday and attend a *Kumon* center for two sessions per week. Every assignment is timed and graded. Students master skills through repetition and cannot progress to a new skill before completing an assignment within a set amount of time and with close to 100% accuracy. New skills and exercises build on previously mastered concepts.

#### The WWC identified five studies of *Kumon Math* that were published or released between 1985 and 2008.

Two studies are within the scope of the review protocol and have an eligible design, but do not meet WWC evidence standards because there was only one unit of analysis in one or both conditions, which makes it impossible to attribute the observed effect solely to *Kumon Math*.

One study is out of the scope of the review protocol because it does not include a student outcome.

One study is out of the scope of the Elementary School Math review protocol because it does not use a sample within the grade range specified.

One study is out of the scope of the review protocol because it does not examine the effectiveness of *Kumon Math*.

1. The descriptive information for this program was obtained from a publicly-available source: the program's website ([www.kumon.com](http://www.kumon.com), downloaded December 2008). 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 *Kumon Math* in grades K–5. Studies of *Kumon Math* in either Pre-K or grades 6–12 were out of the scope of the Elementary School Math protocol.

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

Barnes, L. L. B., Hollingsworth, P. L., & McKenna, M. A. (2005). Developing latent mathematics abilities in economically disadvantaged students. *Roeper Review*, 27(4), 222–227.

The study does not meet WWC evidence standards because the measures of effect cannot be attributed solely to the intervention—there was only one unit of analysis in one or both conditions.

Dessert, P., Hanna, D., Oakley, B., Jackson, M., Lawrence, D., & Petway, J. (2005). *Significant improvements in statewide test results as a consequence of using a Japanese-based supplemental mathematics system, Kumon Mathematics, in an inner-urban school district*. Paper presented at the meeting of the American Society for Engineering Education Annual Conference & Exposition, Portland, OR. The study does not meet WWC evidence standards because the measures of effect cannot be attributed solely to the intervention—there was only one unit of analysis in one or both conditions.

Medina, S. L. (1998). *A study of the effects of the Kumon method upon the mathematical development of a group of inner-city junior high school students*. Unpublished manuscript. The study is ineligible for review because it does not use a sample within the age or grade range specified in the protocol.

Oakley, B. A., Lawrence, D., Burt, W. L., Boxley, B., & Kobus, C. J. (2003). *Using the Kumon method to revitalize mathematics in an inner-urban school district*. Paper presented at the meeting of the American Society for Engineering Education Annual Conference & Exposition, Nashville, TN. The study is ineligible for review because it does not include a student outcome.

Russell, N. U. (1998). The *Kumon* approach to teaching and learning. In T. P. Rohlen, & G. K. LeTendre (Eds.), *Teaching and learning in Japan* (pp. 248–271). New York, NY: Cambridge University Press. The study is ineligible for review because it does not examine the effectiveness of an intervention.