Number Rockets

TARGET AUDIENCE

This program is for students who are in 1st grade and are at-risk for learning difficulties in math or have a math learning disability.

SUMMARY

Number Rockets, a school-based tutoring program, is designed to teach math using manipulatives and other concrete objects to help participants learn progressively more challenging math concepts.

EVIDENCE

Two internal randomized controlled trials evaluating the effectiveness of the program have been conducted. Collectively, the results of these studies show that students in the program, relative to control students, showed greater improvements in general math ability and in specific math skills, including computation, calculation, concepts/applications, and story problems. In one study, improvements in concepts/applications and calculation among program students were found to exceed that of a comparison group of students who were found not to be at-risk for math difficulty. In the other study, improvements in general math ability were not found to be dependent on students' baseline proficiency scores, and no negative impact on reading achievement was observed. Sustainability was not assessed.

COMPONENTS

Number Rockets, a tier 2 intervention in the Response to Intervention (RtI) model, is implemented by teachers and includes 63 lessons that discuss 17 topics that focus on math functions, such as number identification, number sequencing, and two-digit addition and subtraction. Students may be tutored individually or in small groups of two to three students. After each scripted lesson, students practice addition and subtraction facts drills.

The program also includes a point-based rewards system as a means of behavior management.

PREVIOUS USE

No information on previous use was identified.
Number Rockets

TRAINING
A mandatory 1-day tutor training workshop is available for teachers and is conducted on-site by a program director. During the workshop, tutors practice delivering lesson content using lesson manuals and other program materials and receive constructive feedback from the program trainer. This training workshop is $1,500 plus travel expenses for the program trainer.

CONSIDERATIONS
Considerations for implementing this program include acquiring student, teacher, and administrator buy-in; giving teachers the time to attend the training workshop; locating space to hold the workshop on-site; and finding time to implement the sessions in an already existing math curriculum.

The Clearinghouse can help address these considerations. Please call 1-877-382-9185 or email Clearinghouse@psu.edu

IMPLEMENTATION
If you are interested in implementing Number Rockets, the Clearinghouse is interested in helping you! Please call 1-877-382-9185 or email Clearinghouse@psu.edu

TIME
Each session is 40 minutes long, and developers recommend students attend three sessions each week for 16 weeks.

COST
Number Rockets manuals are $29 for the lesson manual and $35 for a supplemental materials manual. Ongoing technical support is available for a fee. For example, phone and e-mail support by the program trainer is $50 per hour, and other on-site support costs will vary. For additional information on cost, please contact the program developer using details in the Contact section.

EVALUATION PLAN
To move Number Rockets to the Promising category on the Clearinghouse Continuum of Evidence, at least one well-designed evaluation should be performed demonstrating positive effects lasting at least one year from the beginning of the program or at least six months from program completion.

The Clearinghouse can help you develop an evaluation plan to ensure the program components are meeting your goals. Please call 1-877-382-9185 or email Clearinghouse@psu.edu

CONTACT
Contact the Clearinghouse with any questions regarding this program.
Phone: 1-877-382-9185 Email: Clearinghouse@psu.edu

You may also contact Lynn Davies by mail Vanderbilt University, 228 Peabody, 110 Magnolia Circle, Suite 418, Nashville, TN 37203, phone 615-343-4782, email Lynn.a.davies@vanderbilt.edu, or visit http://vkc.mc.vanderbilt.edu/numberrockets/contact-us

SOURCE
http://vkc.mc.vanderbilt.edu/numberrockets/ and Rolhus et al. (2012).